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# MANUFACTURERS RECORD

DEVOTED TO THE UPBUILDING OF THE NATION THROUGH THE DEVELOPMENT OF  
THE SOUTH AND SOUTHWEST AS THE NATION'S GREATEST MATERIAL ASSET

Trade-Name Registered in the U. S. Patent Office

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## This Nation's Business Is to Win The War

### DELAY OF MAIIS TO BE EXPECTED.

OWING to the disorganized condition and consequent irregularities experienced in the transportation service of the country, subscribers and other readers of the MANUFACTURERS RECORD are informed that some delay in the mails which carry their copies of this paper is to be expected. This unusual state of affairs with respect to the railroads is due to several causes among which are extraordinary pressure of all kinds of traffic, severe weather, labor scarcity, and the widespread shortage of fuel. Everyone in all lines of business is suffering inconvenience and frequently loss on account of the congestion on lines of transportation, and those who happen to escape serious difficulties may well congratulate themselves upon their good fortune.

### WE CANNOT ABSORB AND ASSIMILATE TOO MANY FOREIGNERS.

Detroit Steel Products Co.,  
Washington, D. C., December 28.

Editor Manufacturers Record:

It was with considerable interest that I read the series of letters between yourself and Mr. Jacob Schiff of New York city in regards to the comments in your paper about the Russian Jews, who are so active in the Russian Revolution.

Quite some time ago I clipped from a New York paper the enclosed, and it seems to me if the United States is to be only the safe breeding place for peoples with ideas wholly opposed to the ideals on which this country was founded, that there should be a stop made of such emigration. Granted that many who have come to our country have become worthy citizens, at the same time one cannot overlook the situation as developed on the New York East Side, a place as foreign to America as any Far Eastern country.

I just wish to add that I am with you all the way in your Americanism as expressed in the MANUFACTURERS RECORD.

CARL L. BRANDT.

The clipping which Mr. Brandt enclosed stated that at the close of the war a million Russian Jews would emigrate to the United States.

## Most Critical Hour in World's History Demands Highest Type of Statesmanship, Forgetful of Party Lines.

WITH the lives of millions of the flower and full fruition of our highest civilization at stake, as our clear-eyed, strong-hearted young men are called to war; with the very life of our nation hanging in the balance and all civilization depending upon us, the greatest poltroon and coward and indeed traitor in America is he who for party's sake or a false idea of patriotism would seek to cover up the blunders or mistakes of any man in public life. The man or the newspaper not willing to open up the broadest flood of light upon the dark spots, or who denounces others because they dare to criticize mistakes or inefficiency in this great world crisis is doing the utmost possible to doom our soldiers to death.

This country has a right to know the truth and the whole truth as to Government blunders and procrastination and to know who is responsible, it matters not where the lightning may strike. If President Wilson is surrounded by many incompetents, whether in the Cabinet, in the Army, in the Navy, or in other branches of the service, the country has a right to know it and to demand that they shall no longer be a fearful liability, carrying death and destruction to our men.

We face life or death, and this is no time to mince words, or from a false sense of patriotism or from party feeling to cover up the mistakes and blunders which are in evidence. We would, therefore, urge the Senate Investigating committee to bring out all possible information and give the facts fully to the public, without in the slightest minimizing or suppressing them, as to the quantity and quality of shells and shrapnel and guns now being produced and whether there is any foundation for the feeling that much of this material is of inferior quality or has been tampered with. Let this committee find out if our ammunition and gun plants are producing more or less now than they were when running under high pressure for the Allies and if less, why this is so. In doing this the committee should put on the witness stand, under oath, all important artillery officers and munition makers.

There should also be the fullest investigation as to the delay in building a nitrate plant and as to what amount of nitrates were and are on hand available for the manufacture of explosives. Let the committee find out why the War Department delayed this plant month after month and then suddenly found it necessary to reverse itself and with feverish haste try to build in record time a plant to meet pressing necessities. How urgent are these necessities and why were they not understood two years ago? This committee should call all experts who are in touch with the situation. In its investigation the committee should let it be known that it wants the fullest information from all called upon to testify.

Will the committee also compel a full investigation as to whether General Pershing has been hampered by incompetent officers or not?

These are but a few of the many things which should be opened up to the fullest investigation. This country can if necessary face a terrible truth to much better advantage than it can rest under rumors and reports of stupid incompetence, of men not big enough for this world crisis, of procrastination, of lack of vision, and energy.

Moreover, if there is no foundation for all the rumors that fill Washington, then the public should know this, so that it might gain confidence based on knowledge. Only good can come from the most ruthless letting in of the light.

The world's fate and the lives of our loved ones may depend upon the fullest investigation and the freest report of every scrap of evidence for or against the management of our war affairs.

Let there be no half-way measures, no half-hearted investigation, no whitewashing.

The only hope of Democracy, with its inefficiency at the start against the war machine of Autocracy, is that our people shall put aside partisanship for broad patriotism and seek the highest efficiency, regardless of individuals and of party interests. In this spirit Clark Howell, a member of the National Democratic Committee and editor of the Atlanta Constitution, has been vigorously demanding the removal or resignation of Postmaster General Burleson because he believes that the good of the country demands better postoffice management than Mr. Burleson is capable of. How unimportant, however, is inefficiency in the postoffice management as compared with inefficiency in the War Department when the issue is the life of our men and of our nation, or of inefficiency in the Agricultural Department when inefficiency to the utmost degree in that department may mean a food famine, to our destruction and that of the Allies, or inefficiency in the Fuel Administration which has already wrought immense harm!

When President Wilson for the nation's safety permitted Denman and Goethals to retire from the Shipping Board, he demonstrated his ability to rise superior to individual preference or politics. Superb opportunities to demonstrate highest patriotism by admitting mistakes of judgment in selecting men who could not measure to the task are again open to him.

A dispatch from Washington to the MANUFACTURERS RECORD says "War Department has collapsed. In efforts to save his face Baker is letting Goethals completely reorganize the Quartermaster's Department. Samuel McRoberts, formerly executive manager and vice-president of the National City Bank of New York is doing the same thing for the Ordnance Department. This won't make up for negligence of the past. Chamberlain's bill for munition department is complete repudiation of Baker, who has not measured up to his job." And yet we have been in war nearly a year and had had two years of warning to get ready!

Colonel Henry Watterson, whose patriotism and

democracy no one can question, in the Courier Journal of December 31, said:

We speak the truth when we repeat what we said last month that at no time since the battle of the Marne has the outlook been as black as it is today. Advantages gained in sporadic battles, only to be lost immediately in full or in large part, avail nothing. Not only in the East, where Russia and Roumania are releasing millions of trained German soldiers for service elsewhere, but on the decisive Western front the situation is bad. If we arrive in the nick of time and the back of German man-power and morale begins to bend, if it be not broken, and we carry all before us, the destiny of the foremost leader of modern times will be fulfilled. If we fail, if the situation remains at a standstill, if this time next year the existing deadlock continues, he will be assailed and distrusted as a failure, no one to share his ignominy, none to do him reverence. It is a dizzy, dangerous height on which he stands.

Colonel Harvey thinks Mr. Wilson should have sent Mr. Roosevelt to Russia instead of Mr. Root. So think we, and we agree with Colonel Harvey that the Administration is not making the best use it might of those Republican leaders who are notably true to the cause and the purpose of winning the war. This seems especially true of both Mr. Taft and Mr. Roosevelt. Yet let us not be too positive. No one, not the wisest, can see very far afield, and all is in the womb of time. If Mr. Wilson's luck holds out we shall win, and none so great as Wilson. But if he fails at the critical moment, the execration of Wilson and all things Wilsonian will surpass anything ever known in American politics. Truly good and loyal men will pray for the President whenever they pray for the country.

And in praying for the President, which every man and woman in America who believes in prayer should daily do, praying for his strength, his judgment, his physical and mental and spiritual power to measure up to this responsibility, they should pray that he may have the ability to forget party lines and forget personal friendships, and call into his immediate council the foremost men of the nation, regardless of politics, and let them share with him the greatest responsibility that ever rested upon any human being since the dawn of civilization.

Get rid of the incompetents and the procrastinators in Washington!

#### THE COMPLAINT OF OPPORTUNITY.

By William Chalmers Moore, Port Arthur, Tex.

**G**ENERAL CROZIER refused to shoulder responsibility for the failure to equip the army adequately with ordnance before the war. He said it belonged to the country, and cited the refusal of the Secretary of War and Congress in the past to approve "modest" ordnance programs. As to machine guns, the General said a full supply of American make should be ready by July 1 next.—Washington News Item.

Sleep on! 'Twas me who heard the war winds roar,  
When thick-set sheaves gleamed in your fields of peace;  
When corn and wine were yours, and golden fleece—  
I bruised my knuckles knocking at your door.

You chose the easy way. Lo, here is War!  
Adrip his blade with hot and crimson smear;  
And dipp'd in hearts of youth his hungry spear—  
I bruised my knuckles knocking at your door.

You slept the sleep of peace; heartsick and sore  
I cried: "The Hun's red torch is on the sea,  
And children scream! Quick, quick, your blade!" And me?  
I bruised my knuckles knocking at your door.

With skins aburst with fat your drowsy snore  
Came echoing back like song-set harvest themes—  
Thanking the gods for plenty in your dreams—  
I bruised my knuckles knocking at your door.

While men who pray like you went out and bore  
The brunt of that mad rush with faith divine,  
Turning the snarling war-wolves of the Rhine—  
I bruised my knuckles knocking at your door.

I cried as never prophet cried before!  
I prayed as fasting priests have never prayed—  
You heard me in your dreams and slept; afraid—  
I bruised my knuckles knocking at your door.

I went my way. And now who comes is War,  
With blade adrip. Mayhap 'tis children's screams  
That yet may wake you from your harvest dreams—  
I bruised my knuckles knocking at your door.

"Germany's greatest and most terrible enemy," said Major Louis Aubert, a member of the French High Commission to the United States, "is not England or France or the United States. It is history—the written memories of man—the record of her own deeds as it shall exist for posterity. \* \* \* History as it is being written of this war will make the future of the German rulers a difficult and terrible experience."

#### Publicity As A Weapon

##### Can Germany Be Humiliated?

We hear of airplanes dropping paper bombs in the form of "tracts" over the German lines in order that the President's reply to the Pope's peace proposal, and the oversubscribed loans, and why America entered the war—may reach the German people. The possession of these tracts is an offense for which a German soldier may be punished, and the airplanes carrying these messages are marked as special objects of attack by anti-aircraft guns.

The German authorities fear pamphlets hardly less than they do powder. They fear the dissemination of the truth regarding their atrocities in Belgium and Northern France; and if the facts regarding them can be given world-wide distribution, and especially among doubting ones in this country, there should eventually come to those responsible for these terrible crimes a deep humiliation and a just retribution for the wrongs committed.

Let everybody help spread the truth everywhere. Distribute pamphlets and literature among people who need to be informed and into communities out of touch with the usual courses of world information.

Will you help in this?

An intelligent knowledge of Germany's war plans, and what is necessary to defeat them, will help win the war.

Read and distribute these two pamphlets.

#### Rev. Dr. Newell Dwight Hillis' Picture of Germany's War Plans and Her Atrocities in Belgium and France

[Reprinted from Manufacturers Record, Oct. 18, 1917.]

\$4.00 a Hundred                    5 Cents a Copy

#### AMERICA'S RELATION to the WORLD WAR

##### SHALL OUR NATION LIVE OR PERISH? (A 52-page Pamphlet.)

BY RICHARD H. EDMONDS

Editor Manufacturers Record.

\$10.00 per Hundred                    10 Cents a Copy

Published by

MANUFACTURERS RECORD

A Weekly Exponent of Americanism

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#### A "TRUSTED" GERMAN SPY.

**N**O more alarming case of German espionage has been brought to light than that of Paul Henig, the "trusted" master mechanic of a company making torpedoes for the United States Navy. Since another Henig, who passed as his son, is now interned at Ellis Island, it is not easy to understand the blind confidence which continued him in a position where he could do so much damage. Lieutenant Shea, U. S. N., was the first to suspect him. This capable officer began an examination of the torpedoes on his own account and found that they were designed to circle back and sink the very ships firing them. There is no need to expiate on the formidable nature of such a plot. Nor is it surprising that there should be considerable apprehension lest other unknown dangers of the kind threaten our military and naval forces. That Henig should pay the death penalty as a spy goes without saying; the example cannot be too severe. But there should also be an immediate and searching investigation of other "trusted" Germans who are employed in war work. The consequences of untrustworthiness are too perilous to be ignored.—Philadelphia Ledger.

How many more Henigs are there making torpedoes and explosives for our Government? How much longer is inexcusable leniency in dealing with these criminals to be tolerated? Are we really at war and do we know the meaning of war, or is it all an opera bouffe effect we are thinking about? Will Henig "pay the death penalty" or will he be comfortably interned for a few months or perhaps for a year where he will have the opportunity of continuing to do the work of his master, the Devil, as typified on earth by Germany?

#### A PRAYER FOR PRAYERFULNESS.

Rev. D. G. Bicklers, Athens, Ga.

Father, we pray for prayerfulness. . . . Our soldiers go Now out to fight in righteous cause for freedom of the world,

The great adventure, the supreme crusade—and we are so Engrossed in many little things or taken up in work that hurled

Us into fev'rish haste—that we forget, remember not That back of all, and under all, and over all is one Great brooding spirit now of truth. . . . Whatever be our lot,

Whatever duty now is ours to do—we need each day, each hour,

The prayerful spirit with its peacefulness of heart, Its vitalizing strength to aid us do our individual part—Its clarity of vision and its still small voice of real, abiding power.

#### MORE TRACKS, MORE TERMINALS AND MORE ROLLING STOCK NEEDED.

Charles E. Hellier,  
Attorney and Counsellor at Law,  
57 Equitable Building,

Boston, December 18.

*Editor Manufacturers Record:*

I think you are justified now in crying "I told you so," with all the force possible, with reference to the railroad situation. For 10 years past you have been calling attention to the absolute necessity of the railroads having more money in order to furnish not only cars and engines, but tracks and terminals. You forecasted the catastrophe which was bound to come, and which has come, but which cannot be remedied by an additional car supply or additional locomotive supply alone, but more terminals and tracks must be furnished in order to carry the increased traffic. Now is the time to hit the demagogues and politicians, who are responsible for the situation, hard. I don't know as it is necessary to call names, but it would be easy to do so, but the railroads must be furnished immediately with the capital they require. The delay has cost the country 10 times what the demagogues and politicians may have saved by cutting down the freight rates and ruining the credit of the railroads. Now is the time to strike while the iron is hot.

Please call attention to your warnings of the past, and insist now that they be heeded without any delay.

CHARLES E. HELLIER.

Mr. Hellier is a leading Boston attorney, largely interested in industrial activities. He is president of the Big Sandy Co., which at one time owned about 130,000 acres of Elkhorn (Ky.) coal land and still has probably 60,000 to 70,000 acres; actively identified with coal mining and coke making in that section, he is in a position to understand the need of more tracks, more terminals, more locomotives and more cars. The Government's control will not overcome all these disadvantages until billions have been spent for expansion of all these facilities.

## He Who Is Not an Aggressive Friend of England Is an Enemy to America.

CHARLESTON-ISLE OF PALMS TRACTION CO.,  
W. W. FULLER,  
Chief Engineer and Gen. Supt.

Charleston, S. C., December 21.  
*Editor Manufacturers Record:*

During the course of my observations I have noted considerable propaganda (oral) to the effect that England has in no way done its part in this war. I have taken the position to the contrary, and would appreciate the correct facts in the matter.

I am informed by the public, almost in general around this section, that England has not as many men on the front as has France; is this not a mistake? I am also told that France is holding nearly the entire front lines of the war front. This is generally believed by a great number of our Southern people, and, furthermore, it is stated that England has not come to the rescue of Italy, or done anything like its share in this war; my position is that we have been exceedingly fortunate in having England in this war, and, in my judgment, fighting for us since the beginning.

If you will kindly advise as to the number of men representing the various nations fighting with the Allies, the front that each is holding, and any other information that would assist in educating our people as to the truth, will be highly appreciated.

W. W. FULLER.

P. S. — There is considerable unrest and feeling among a great number of people as to why it is that our fleet, at least a part of it or perhaps a combination of the various fleets, has not been sent into German waters, or at least into enemy waters, and, why is it that our submarine forces are not active in foreign waters?

Mr. Fuller has evidently come into contact with the propaganda which Germany is vigorously working in this country to create hostility to England by claiming that England has not done its full share in the war. This suggestion is as rotten and as devoid of truth as is the whole German propaganda. Any man who puts forth a suggestion of this kind in intentionally or stupidly an ally of Germany and is simply helping Germany to carry on its propaganda of mind poisoning.

There are in this country some officials, some Congressmen, and some who claim to be pro-Americans, who are so bigoted as to Great Britain and so narrow and provincial in their thought that, out of hatred to Great Britain because of a war fought more than 100 years ago, they still give forth the venom and the poison injected into their system by false teaching. These people forget the fact that the Revolutionary War was, from the English point of view, dominated by a German, then on England's throne. They forget the fact that the best and foremost statesmen of England vigorously opposed the war against the American colonies, and they forget that England, as the great Anglo-Saxon leader of the world, has been the greatest power for the civilization of the world. Possibly some of them know that we hid for three years behind the English fleet and, like cowards that they are, they seek to misrepresent the men who saved them.

It was the English fleet that swept the German fleet and German commerce from the ocean.

It is the English fleet which has held the second largest fleet in the world bottled up in the Kiel Canal.

It is the English fleet which has made impossible the invasion of this country by Germany and the destruction of American cities by the ruthless savagery of Germany.

A few months ago Lord Northcliffe, in an address at Atlantic City, referring to the unpreparedness of England at the beginning of the war as compared to the marvelous preparedness of Germany, said that in August, 1914, England had a total of 20,000,000 rounds of ammunition while Germany had four thousand billion rounds.

At the beginning of the war, in 1914, England had a total army of 200,000 men and not all of these of course were available for service in Belgium and France. Many of them were scattered over the world. But in 1917 England had 5,000,000 men under arms in its home and colonial activities, exclusive of those serving in India.

The most amazing achievement in this or any other war was that prior to the introduction of

conscription Great Britain had 5,000,000 volunteers for its army service. This so far surpasses in volunteer service anything which the United States has ever done that it puts to shame our volunteer work.

At the beginning of the war England was able to put into France and Belgium about 150,000 men. It now has between 2,000,000 and 3,000,000 men in France.

England's far-flung battle lines stretch over much of the world. Its soldiers are fighting on the Western front in Belgium and France, and on the Italian front; they are helping to hold the Balkans; they are winning back to civilization the Holy Land; they have driven the Turks and the Germans from the effort to reach the Suez Canal; they have practically driven Germany out of Africa, and Great Britain is still increasing the number of its soldiers and training mighty armies to supplement those now in the field.

At the moment figures are not available to bring down to date the magnitude of the work done by the English Navy in transporting English armies and equipments, but in a little more than two years from the opening of the war the English Navy had transported 8,000,000 men and over 1,000,000 horses and mules, and had moved across the seas over 9,000,000 tons of explosives and materials for herself and allies.

At the beginning of the war Great Britain had three arsenals; now it has 90, and all are working night and day.

The total weekly production in England of cartridges is greater by millions than was the annual output before the war.

In addition to increasing the number of its arsenals from 3 to 90, there are now about 4000 firms controlled by the British Government engaged in munition making. This involves the employment of an industrial army of 4,000,000 men and women, of whom more than 1,000,000 are women, or five times as many women as were engaged in this work before the war.

On June 28, 1917, the Minister of Munitions in an address before the House of Commons said that in March, 1917, the production of high explosives was four times that of March, 1916, and 28 times as great as that of March, 1915.

The capacity for the production of machine guns was at that time more than 20 times greater than it was two years before.

Indicative of the enormous amount of shells used in the great battles on the Western front, it was stated that this year the expenditure of shells of 6 inch and upwards in the first week of a recent offensive was nearly twice that of the first week in the Somme battle and during the second week of a recent offensive the expenditure was six and a half times that of the second week of the Somme battle.

The weekly output of shells in Great Britain in 1917 compared with the output at the end of May, 1915, when the Ministry of Munitions was established, was for 18-pounder guns 28 times as great; for 4.5 inch field howitzers the increase was 52 times; for medium guns the increase was 71 times and for heavy howitzers above 6 inch the increase was 425 times as great.

In August, 1914, when the first shot was fired by England in defense of civilization, the English troops were outnumbered by five to one and while practically every man in Germany had had three years of army training and while all of Germany was practically one great armed camp, England was a country of peace, wholly unprepared for war, with the exception of its protecting fleet. It had to create its armies, create the munitions, and organize the development of every line of industry needed in the making of war. Its achievements have been marvelous. Not only has England, through its navy and its army, saved civilization, but it has loaned its credit to its Allies and advanced them some \$4,000,000,000 or \$5,000,000,000 or more.

Superb as was the work of France and Belgium,

marvelous as was the fight at the Marne which saved the world from destruction by Germany, we can easily see that had it not been for the English Navy which swept the seas and enabled France to draw upon this country and England for food and munitions, and had it not been for the millions of soldiers which England has thrown into the Western battle front while fighting against Germany and Turkey in the Orient, France and Italy would long ago have been completely overrun and German power would within a few months after the war began have reigned supreme from the English Channel to Bagdad and on beyond, and when Germany held that position England would soon have been dominated and England's destruction would have meant the complete overrunning and destruction of America.

**These are some of the facts which should be fully appreciated by the American people.**

England is not only our ally, but England should be dearer to us even than France itself. This country is to a very large extent of English blood. England has stood between us and Germany for many years. England is the land of great poets and writers, such as Shakespeare and Milton and Bunyan and hundreds of others whom America claims almost as its own, because they were English-speaking people.

For more than a century England's great colony, Canada, with an area larger than that of the United States, stretching for nearly 4000 miles along our northern border, has lived in peace and harmony with this country by reason of a treaty of peace made with England.

Who for one moment can possibly imagine that had Canada been Germany's we would not long ago have had to fight for our existence, and who can imagine that Germany's covetous, lustful eye would not long ago have looked from Canada across the border and sought our destruction in order to capture the vast iron ores of the Lake Superior district, because it is for the iron ores of Alsace and Lorraine that Germany is today fighting as it was for these iron ores that it fought the Franco-Prussian War?

Every true-hearted American ought to feel a sense of profound gratitude that through England's power and England's fleet and England's armies, we have been saved from destruction. We can now realize that every drop of blood shed by England and France and Belgium and Italy and all our Allies has been shed to save this nation, as well as those nations, from eternal damnation under German rule.

**He who is not an aggressive friend of England is not a true-hearted American.**

## CLOGGING THE NECK OF THE NATION'S FUNNEL.

S HORTLY after the beginning of the war in Europe when congestion at Eastern ports was coming into sight, the MANUFACTURERS RECORD urged that Southern ports should be used to as large an extent as possible, because this would develop a broader system of handling export trade, would lessen the congestion at Eastern terminals and benefit the country by enlarging the terminals and shipping facilities at Southern ports. Ever since then we have been pressing this matter upon the attention of the railroad people and the shippers. The fact that this position was sound now finds a full illustration in the testimony of Mr. Edgar E. Clark of the Interstate Commerce Commission. In his testimony before the Senate Investigating Committee, Mr. Clark took the ground very insistently that more exports must be sent from Southern and Southeastern ports to relieve the continued congestion at New York and New England ports. "Ship owners," he said, "have favored the North Atlantic ports because of the shorter voyage and less marine insurance, but it is necessary for the successful operation of our railroads that more shipments be diverted from New York."

These facts should have been emphasized to the country by the Interstate Commerce Commission

without waiting until this late day. It seemed difficult to awaken the shippers and the railroads and the financial powers controlling the situation to the fact that endless confusion was certain to come about by reason of the effort to drive the entire trade of this mighty country, crowded to the limit with production of munitions for the Allies, through the narrow throat of the funnel of New York and other North Atlantic ports.

Stretched out as a great funnel into which was being poured the vast traffic of the North and Northwest and the West, and indeed of portions of the Southwest, the funnel ended at New York City. And yet railroad men, bankers, Government officials and shippers generally tried to ram through the small funnel, throat or neck, a volume of traffic which filled the entire funnel to overflowing. Was greater shortsightedness ever displayed in business operations?

Had the Interstate Commerce Commission strongly presented to the public and to the railroads the economic folly of continuing such a system it would have compelled a change before this. Now that the funnel has been clogged to such an extent that there can be no free flow of trade through the narrow mouth, the Government finds it necessary to undertake the shipment of exports through South Atlantic and Gulf ports. This movement should have begun in the fall of 1914, and every month since then has made clearer the necessity of it.

#### NATIONAL HIGHWAY SYSTEM VITALLY NECESSARY TO SUCCESS OF AMERICA'S WAR PLANS.

**W**HAT action is going to be taken in Washington in regard to highway construction and maintenance during the war period? It is urgently important that some decision be promptly made so that the various States can know where they stand and be able to plan their work. The open season when highway construction is active is rapidly approaching, and the intervening time is no more than is necessary to get details into shape to start next season's work promptly if any well-planned, systematic work is to be accomplished.

In a number of cases State laws will have to be altered to meet the changed conditions brought about by the war, and as many of the State legislatures are now in session, it is important that they know what the exact attitude of the Federal Government will be so that they can shape their laws accordingly. In addition, it requires considerable time to map out and plan the work to be done during the construction period. This work is always laid out during the winter so there will be no delay when spring opens up. Much valuable time will be lost, therefore, unless a decision is received promptly from Washington, clearly and definitely outlining the Government's attitude and policy regarding highway improvement during the war period.

The highways of the nation are either essential in our war plans or they are not. This, it would seem, is the basic question for the Government to decide. With that decision made, every State will know exactly what to plan for and how far they can go. Every day's delay in reaching this decision is going to mean much greater delay in getting the work started on roads that will be most vitally needed.

Why there should be continuous delay in announcing this decision, and why the decision can be aught but a favorable one, is beyond the comprehension of those who know how extensively and efficiently many of our highways are being used during the transportation congestion, and who from these experiences have been able to visualize the tremendous possibilities of motor truck trains operating over improved highways and the relief they will bring to our overburdened railway systems.

We have three main methods of transportation—rail, water and roads. We all know the rail lines are taxed beyond their capacity. We also know our water routes have not been developed sufficiently to give any appreciable relief to the railroads. Then it must follow that we will have to

look to our highways to take as much of the burden as possible from the railroads to meet the transportation demands of the country. Last September, when the United States Chamber of Commerce held its war convention in Atlantic City, it adopted resolutions emphasizing the part which our highways can perform in the war period, and stated that "prompt improvement of our public highways is important and should be forwarded in every proper way." Thus America's greatest business organization has gone on record in expressing its opinion as to the value of continuing highway work during the war period.

Since that time Major-General William M. Black, Chief of Engineers; Major-General Leonard Wood, and Major-General Goethals, Acting Quartermaster-General, have all publicly expressed themselves as to the vital importance of improved highways in our war plans, and the various official tours of army motor truck trains have demonstrated how efficiently these can be operated over roadways in various phases of war activities.

It has also just been announced that the Post-office Department, within the next three months, will establish motor truck parcel post routes in linking-up various parts of the country, and aggregating between 3000 and 4000 miles, which adds another significant recognition of the essential need of highways during the war period.

Many manufacturers and merchants can also testify to the valuable results they are getting from their use of the motor truck, both in receiving and distributing goods and supplies, while the farmer is finding that the use of trucks over improved roads is a great boon in helping him to get his crops to the market.

In every trade center motor truck lines are operating in every direction to distribute supplies and goods, while there is also a steady increase in inter-city truck lines in every part of the country.

Those therefore who have watched the expanding use of the motor truck know that it is steadily and surely earning for itself a permanent place in our modern means of transportation, and as it is proving its economic value it is imperative that the National and State governments recognize these facts, and so build and regulate our highway systems that they can provide for the broadest possible utilization of the motor truck, not only during the war period, when this additional means of transportation is so vitally needed, but also for the ultimate benefit of our agricultural, industrial, and commercial expansion. Our highways, however, are not going to stand up under this increasing traffic unless the National Government classifies highways as essential to our war work and makes a quick decision that will enable materials and supplies to be handled for the maintenance of established roads and the construction of important connecting links.

It was with a full recognition of these facts that the American Association of State Highway Officials at its recent meeting in Richmond, where 40 of the 48 States were officially represented, went on record in formal resolutions recommending the continuation of highway work as essential in our war plans. These men spoke from an intimate knowledge of conditions in their respective States, and in order to co-operate to the fullest extent, passed a series of resolutions that could well be adopted as the highway policy of the Nation during the war period. In these resolutions no effort was made to give free rein to all kinds of road building, regardless of location or need, but it was urged that those roads be first improved that would be of the greatest economic value in the present crisis and that an intensive program of maintenance be carried on so that roads already built could be saved.

Other pertinent recommendations were made, all of which represent the result of earnest thought and study on the part of officials who are most thoroughly posted as to conditions in their various communities. As stated above, these recommendations covered the highway requirements of the country so thoroughly during the war period that they could well be adopted as the national program of road construction and maintenance while the war lasts.

In the face of these facts and with evidences

showing an urgent demand for the construction and maintenance of our important highways as both a war and an economic necessity, why must there be any delay by the authorities in Washington in announcing a definite decision that will allow the States to proceed with plans that will place the Nation's highways in a condition to perform the services they are so capable of rendering and which might later be needed in a more vital way than any of us can at present foretell?

Never before have conditions been more favorable for quickly formulating and carrying out a cooperative plan for Nation-wide highway improvement. On account of the requirements of the Federal-Aid Road Act every State now has a highway department that is closely working with the Agricultural Department at Washington, so that a complete organization is available to develop and work out plans that will provide for a system of highway construction and maintenance during the war period that will prove of the greatest possible benefit to the Nation.

By all means, then, let the officials of every State, the farmers, the merchants, the manufacturers, the business organizations, the transportation interests, and all public-spirited citizens who know the great need of good roads in our war plans and in our business life, urge upon Washington the adoption of the simple, comprehensive plan as recommended by the Association of State Highway Officials.

#### A GREAT RED CROSS CAMPAIGN WORK.

**C.** F. DRAKE, secretary of the Chamber of Commerce, Weatherford, Texas, writes to the MANUFACTURERS RECORD saying:

We reprinted Dr. Hillis' address in newspaper shape for the Red Cross Christmas drive, and tonight (December 29) we have exceeded our quota, 6582, by nearly 500. Put out 6500 of the papers, one in every family in Parker county.

Secretary Drake also sends a copy of the special newspaper employed in the work. It consists of four large pages, on the first of which is stated the object of the Red Cross campaign, with a reference to Dr. Hillis' visit to France and Belgium and his subsequent renowned address describing completely the reports of horrors which he investigated and found fully confirmed, which address was published in the MANUFACTURERS RECORD, this fact being particularly noted. On the inside pages the address is presented in full from the MANUFACTURERS RECORD of October 18 last, together with extracts from the great speech made by Otto H. Kahn, at Harrisburg, which was published in the MANUFACTURERS RECORD September 27 last.

There is no doubt that this impressive presentation of Dr. Hillis' words and Mr. Kahn's utterances, through the efforts of Mr. Drake and the Weatherford Chamber of Commerce, had much to do with the great success of the Red Cross campaign in the territory covered by their energies. It brought home to the people of the interior of Texas the whole truth of the ruthless war which the Kaiser and his armies are waging in their endeavors to extend German dominion over other countries and, if possible, over the world.

Such good work as this ought to be imitated in other parts of the country where people have not yet wakened up to the truth concerning the ruthlessness of the greatest war that the world has ever witnessed, in which our civilization, along with the civilization of the entire world, is threatened with extinction.

#### HOW WASHINGTON REGARDS MANUFACTURERS RECORD.

Treasury Department,  
Washington, D. C., December 22.  
*Editor Manufacturers Record:*

The great value of your co-operation and assistance in the Liberty Loan, and your patriotism are constantly borne in mind here.

Very truly yours,  
OSCAR A. PRICE,  
Director of Publicity.

## WHY ARE THE INCOMPETENTS LONGER KEPT IN OFFICE?

**I**NCOMPETENCY in Washington was demonstrated to an amazing extent in the testimony given as to the War Department's neglect of sanitary conditions in some of the training camps. A few facts, as told in a dispatch from Washington to the New York Herald, are indicative of conditions which many people have known, but which they dreaded to publish or to discuss.

From a lengthy dispatch to the New York Herald covering one day's investigations the following brief story is taken:

Deplorable sanitary conditions, due to the War Department's neglect of divisional commanders' appeals for more adequate equipment, have killed scores, if not hundreds, of troops in the training camps, according to testimony this afternoon before the Senate Military Affairs Committee by Major-General Edwin St. John Greble, commander of the Thirty-sixth division at Camp Bowie, Texas.

Troops were quartered 12 to a tent. General Greble warned the War Department an epidemic would result from such overcrowding last September. Pneumonia, pronounced by medical officers the most virulent they had ever seen, made its appearance.

Camp Bowie had an average of 16 deaths a day for a time. More than 200 soldiers succumbed. In November 8000 cases of illness were recorded at the base hospital.

Major-General William M. Wright, commander of the Thirty-fifth division, at Camp Doniphan, Fort Sill, Okla., also testified that much illness resulted in his camp because of insufficient clothing. General Wright said hospital accommodations were inadequate.

The committee listened in amazement to the revelations of sanitary conditions, rivaling those which caused such widespread indignation in the Spanish war. Members pursued the questioning relentlessly to establish firmly the blame. When it was laid at the door of the Quartermaster's Department, the committee immediately decided to recall Major-General Henry G. Sharpe, Quartermaster-General, to the stand tomorrow.

Both generals reported serious shortages of ordnance, both in small arms and in artillery, in their camps, and admitted that it was interfering with the training of the troops. They had no assurance, General Wright said, that the shortage would be remedied until after they reached France. General Wright furnished the committee with a tabulation showing his division was short 5114 rifles, 538 automatic rifles, 224 machine guns, virtually all field artillery, 10,920 pistols, 9816 bayonets and many other needed pieces of equipment.

"How much ought you have for training purposes?" asked Senator Hitchcock.

"We ought to have it all," answered General Wright. "Have you any assurance when you will get it?" asked Senator Hitchcock.

"No assurance until we get abroad," replied the General.

General Wright's division did not begin to get its overcoats until December 3, he testified.

"Was there any sickness due to a lack of clothing?" asked Senator Hitchcock.

"When I returned to New York from France, on December 1, I wired General Barry, acting commander, what conditions were, intending to lay them before the War Department before I started West," answered the General. "He wired back, 'much sickness, due to insufficient clothing.' I took it up with the War Department, and found that all necessary clothing had been shipped."

General Wright said that last reports showed 1402 cases of sickness at Camp Doniphan.

Going back to the rifle shortage, Senator Chamberlain said: "For every day you fail to get equipment you detract that much from training, do you not?"

"Yes, sir," replied General Wright. "Equipment and efficiency go hand in hand."

Regarding machine guns, General Wright said he never saw a Browning gun, the newly adopted machine gun of the army.

"What do you know about the Lewis gun?" asked Senator Chamberlain.

"Very little, except that the British think very highly of it," answered the General.

General Greble reported the equipment shortages in his division as follows:

Rifles, 50 per cent.; bayonets, 65 per cent.; pistols, 80 per cent.; machine guns, 100 per cent.; automatic rifles, 88 per cent.; 3-inch guns, 88 per cent., and 6-inch howitzers, 100 per cent.

"We've been at war now since April 6—can you conceive why ordnance should not be supplied by this time?" asked Senator Chamberlain.

General Greble answered that it might have been due to the heavy drain on supplies in equipping divisions sent to France.

"Of course, that wouldn't be the case with machine guns, because those troops sent abroad took none with them," commented Senator Hitchcock.

"Does this shortage seriously delay training?" asked Senator Hitchcock.

"Yes," replied the General.

"Does it delay it completely?"

"No," replied General Greble. "Some training can be done."

General Greble thought the War Department "should have given us the best they could get" when asked about the Lewis machine gun. He said he never heard a complaint about the Lewis gun abroad and never saw one jam. "I don't know anything about the Browning gun."

The MANUFACTURERS RECORD would infinitely prefer to unstintedly praise all that has been done and is being done in preparing for the war, but it could not, without stultifying itself and its responsibility to the men who are offering their lives in the nation's service, withhold criticism of those in authority who are responsible for our deplorable condition of unpreparedness.

We were unprepared to handle the organization of an army from the sanitary point of view. We were unprepared with explosives, with rifles, with machine guns, with cannon, large and small, and everything else necessary for our protection from a formidable foe. All of these things would have been known in advance by an intelligent business concern.

Imagine for a moment such inexcusable blunders being committed by such an organization, for instance, as the Steel Corporation, or any other great world-encompassing business organization of the country, as were committed by the War Department, and one can get a fair idea as to what inefficiency and incompetence and dilatory methods mean in comparison with efficiency, with foresightedness and with the energy to put things through!

It is true that some of these conditions in Washington have been developed by red tapeism, but surely the time came many months ago when the President and members of the Cabinet should have cut red tape.

Is it true, as has been claimed, that some bureau officers in the War Department in these days of fearful stress and strain close their desks at four o'clock (P. M. not A. M.) and walk out to do nothing the rest of the day? Business men under such circumstances do not hesitate to work far into the night.

Is it true that the War Department found itself so overwhelmingly short of explosives and materials out of which to make explosives that it had to call a hasty council and seek, by almost unprecedented activity, or at least try to bring about such unprecedented activity, to build a nitrate plant which should have been built and in operation a year ago?

Is it true that long after Congress had appropriated the money for this plant, the Committee having the matter in charge was dilatory to the extent of wasting priceless months in doing nothing at a time when it was known that every ton of nitrate which we were bringing from Chile for explosives was utilizing shiproom which should have been employed in carrying food and munitions to our Allies, and yet that was only one part of the danger of the situation?

We were dependent for explosives wholly upon nitrates which could be secured only in Chile, or else produced from the atmosphere, and while dependent upon Chile, thousands of miles away, we were in danger at any moment of submarine activity shutting off the Chilean supply and even of Chile refusing to sell nitrates, and yet we went on apparently unconcerned as to this terrific danger, month after month, and now with feverish haste we are trying to build a nitrate plant to save ourselves from an alarmingly serious shortage.

Was it politics which held back so long the erection of this plant, or was it simply lack of vision and lack of energy required to do things?

That there was in this case, as in the insanitary conditions of camps, as in the lack of clothes, the lack of guns, the lack of many other things essential for the making of soldiers, a lack of vision, a lack of initiative, a lack of energy and an over-supply of procrastination goes without saying.

Turn out the incompetents in Washington, wherever they may be found, whether in high or low estate!

## NORFOLK'S DESTRUCTIVE FIRE BY GERMAN ACTIVITIES OFFERS ANOTHER SERIOUS WARNING TO THE NATION.

**E**NTIRELY across the front page, in big bold type, the Norfolk (Va.) Ledger-Dispatch the day following the first great fire in that city, which was followed by a continuation of other outbursts of fire, appeared the words:

**"PLOT TO BURN NORFOLK!  
"GUARD YOUR PROPERTY."**

And then the following lines:

"Fires, evidently part of a plot to reduce Norfolk to ashes, are breaking out all over the city. All citizens are urged to protect their premises. The Home Guards have been called out and Chief Kizer has asked that 200 marines and fire-fighting apparatus at the Naval Station be rushed to the city.

"Joseph C. Prince urges the residents to protect their property by placing armed men on watch and keeping them there all night, declaring his conviction that the fires now raging are a part of the plot. Armed guards are requested on the waterfront and in the larger office buildings and at large establishments of all kinds."

This announcement, published with startling headlines across the entire front page of the Ledger-Dispatch, is typical of everything else in that day's issue which contained the story of the great fire in the heart of that city.

During the course of this fire there were many explosions in different buildings, and it is claimed that a number of suitcases had been left at different stores by men who asked the privilege of leaving their suitcases until they returned for them, but as they never returned and as explosions occurred in a large number of buildings, it is now believed that these suitcases contained explosives or bombs, and that the scheme was one designed to destroy the city of Norfolk if possible because of the fact that it is one of the great centers of naval and aviation activity.

This work of German spies adds but one more illustration to the dangers which surround us every moment and which are liable to crop out in any community in the country.

Norfolk barely escaped, by the tremendous effort of the firemen from that and adjoining cities, from being practically destroyed, since the heart of the business section was burned.

It is useless to attempt to find language which would adequately characterize these activities of German spies. No language known to man meets the situation, but we are once more reminded by this fire of the unpardonable slackness with which the Government has handled the pro-German activities in evidence throughout the country. We have allowed the most pronounced pro-Germans, some claiming American citizenship, and even the most outspoken alien enemies to roam the country free, plotting for the destruction of munition plants and the burning of cities, resulting in the killing and maiming of our people.

What boots it to Germans whether they murder American citizens by incendiary fires, bombs from airships or by gun fire? From the very beginning this country had ample warning that these things would take place. We should have known that there was not a crime which the most depraved human being could commit which German spies, Germans and pro-Germans, would not be willing to commit in the interest of Germany. It is for this reason that we have earnestly sought to arouse the Washington authorities to the seriousness of this situation and it was for this reason that we suggested that there should be created a department of safety, headed by a man of such unquestionable courage that the public would have implicit faith in his carrying to the limit the suppression of these German activities in America. Until this is done we are living in a fool's paradise of imaginary safety.

There are millions of people in this country who will rejoice at the near destruction of Norfolk and who would have rejoiced still more if the entire city and the navy yard itself had been destroyed. They

are gleefully gloating over this disaster as one more proof of Germany's efficiency—an efficiency which in crimes surpasses that of the Devil himself.

But this fire in Norfolk suggests the importance of the organization of Home Guards or Vigilance Corps in every village and town in the country. In a large proportion of the smaller towns and villages there is no organization of police or home guards which could be called upon in an emergency to meet such a situation as that which developed in Norfolk. Fortunately the Navy Yard was able to throw into Norfolk within a few minutes after the fire enough marines to guard the city while the local authorities were calling together the home guards. Had there been no such protection available Norfolk might have been destroyed. The cities and towns of the whole country should heed the lesson and immediately organize an active, aggressive Vigilance Corps or Home Guard, whose duty it will be not only to safeguard the community in time of emergency, but to ferret out every pro-German in the community and see that he is watched with exceeding care and that he is given no opportunity whatever for putting into effect the instructions for evil which he, like every other pro-German in the country, seems to have received. Delays are dangerous.

#### THERE SHOULD BE NO PEACE TALK EXCEPT BASED ON GERMANY'S UNCONDITIONAL SURRENDER.

CARDINAL GIBBONS of Baltimore, in an interview a few days ago, referring to the rumor of peace, said:

I believe that the best way to end the war early in the coming year is for the Central Powers to make a definite proposition, and one that will embrace all their aims and demands.

On the part of the United States, I believe that the best governmental action would be for the officials to put themselves in a receptive mood for the generous consideration of any peace offer that might come from the Central Powers.

I think that all Americans should put themselves in a position to sympathetically receive and consider any offer embodying fundamental concessions that would commend themselves to the Allies, and to ponder over these propositions in a dispassionate and broad-minded way.

We regret that Cardinal Gibbons should have been misled in making such a proposition. His interview was published in the Baltimore Sun in connection with a rumor from Rome that a peace offer was expected, and the Sun said:

It is possible that the leading men of the Catholic Church now have knowledge of a prospective peace offer which they believe will deserve the careful and sympathetic thought of America and her Allies.

America and her Allies should give no sympathetic thought to any peace offer except that peace offer be dictated by America and her Allies and involve a death penalty upon the Kaiser and the Crown Prince and upon every German official who has been at the head of the army and navy and has been responsible for the black crimes against civilization committed by their orders.

As well might one talk of a sympathetic reception of a peace offer made by a scoundrel who had outraged and murdered a man's family and who then sought to escape the just penalty of his crime, to suggest to this man who had thus suffered worse than death that he must receive with sympathetic ear, not the penitent pleading of a man who realized the blackness of his deeds, but that he must receive with a sympathetic ear the brazen proposal of the criminal that not only should he go scot free unpunished for his devilries, but that he should be allowed to take out of the house all of the loot upon which he could lay his hands. That is practically the proposition which Cardinal Gibbons suggests that the American people and the Allies should be willing to follow.

We regret that the Pope some months ago practically placed a premium upon crime when he suggested peace on somewhat similar terms. But we

can understand that in view of the influences that surround him the Pope might be misled into taking such a position. But for Cardinal Gibbons, a great American who has always been credited with pure Americanism, now to follow the lead of the Pope and make a suggestion of this kind is from every standpoint most unwise. It is a reflection upon the integrity and manhood of civilization. It is a suggestion that civilization shall accept as equal for the discussion of peace terms the blood-dripping hands of the basest murderers who ever stained the pages of history. It is a stab at the moral backbone of civilization.

Cardinal Gibbons, we are sure, has too high a sense of duty to God and man, to morality and honor, to give earnest support to the suggestion which he has made. We are sure that he will yet stand strongly and firmly for the justice which demands adequate punishment, regardless of the cost, of those who have filled the world with blood and agony. Peace based on any other terms would stagger civilization, would blot indelibly the honor of mankind, would not only condone the most damning crimes in human history, but would put a premium upon immorality and murder by the individual and by a nation. No; Cardinal Gibbons, moved perhaps by pressure from abroad, has put forth this suggestion as a feeler, but surely Cardinal Gibbons would not stamp himself or his Church through the centuries with an approval of all the dark and fearful crimes, with all the deadly immorality, with all the indescribable outraging and maiming of women and men and even of little children. Cardinal Gibbons' Church could not write into its history a more fearful curse of evil than the approval of Germany's crimes for which Germany had for years been preparing.

#### INCOMPETENTS WHO DO MORE HARM THAN THE BULL IN THE CHINA SHOP.

THAT Government mismanagement of the priority shipments and of the railroad situation generally was largely responsible for bringing about a condition for which there seemed to be no relief except by President Wilson assuming control of the railroads, is strongly brought out in testimony before the Senate Investigating Committee by the statements made by Mr. C. C. McChord of the Interstate Commerce Commission. It is said that the President's plan for the operation of the railroads is the one suggested by Mr. McChord when he made a minority report in connection with a recent report by the Interstate Commerce Commission as to the railroad situation.

Mr. McChord pointed out, as the MANUFACTURERS RECORD had previously done, that the priority system had increased instead of relieved railway congestion and had been a great detriment to business.

"Priority orders," said Mr. McChord, "as they have been issued have tended to disorganize the whole transportation system. The priority system has been greatly misused. Information in the hands of the Commission shows that more than half of all the shipments are under priority orders."

"I believe," said he, "there is no business on earth where the regular order should be maintained more than in the railroad business. We had the Priority Board, the War and Navy Departments, the Fuel Administration and the Food Administration, the Car Service Commission and the Interstate Commerce Commission issuing priority orders. Only confusion and serious hindrance to transportation could result."

It would look from this statement of Mr. McChord's as though just one more "commission" should have been appointed with the power to issue priority orders and that should have been known as "the Fool Administration."

Mr. McChord stated that a naval officer had issued an order on a large shipment of anchors to a shipyard long before work on the ships was to be started. This is a direct confirmation of a rumor to that effect which we published last week, and as a result of that priority order on anchors for ships for which the keels had not been laid a vast

amount of transportation was held up for several days.

It is also an interesting fact which we have learned from reliable sources that a few weeks ago a number of cars loaded with crushed stone for road work by the Government, were held up for two weeks at Camp Lee though vigorous efforts were being made to get the Government to unload them and release them for other service. The material could have been dumped alongside of the tracks almost anywhere in order to release the cars, but they were kept on the track for weeks, valueless for all transportation purposes when they could have been used for coal or other needs at a time when the Government was justly berating shippers even when they held cars for a few hours beyond a reasonable time.

Mr. McChord took the position with which we do not agree, that it will be almost impossible to add a large amount of equipment for railroads during the war because of the scarcity of labor and the materials needed. He thinks, however, that the co-ordination of all the activities of the railroads will enable the country to get along with the present number of cars provided there is an increase in motive power. We feel quite sure that it will be necessary, contrary to Mr. McChord's views, to greatly increase both locomotives and cars, and that a way will have to be found to do it.

Very properly Mr. McChord outlined the situation as to the necessity of speeding up business which will depend largely on transportation facilities. He stated that the industries of the country must be kept running at top speed in order to finance the war and told how some industries, essential in themselves, but not primarily engaged in making war supplies had suffered and to this added: "The success of our Liberty Bonds will depend on whether these industries are kept running, for the people who subscribe to the loans must have their wages paid regularly before they can subscribe. At present because of the car congestion this phase of the situation has become serious."

We believe that the mistakes—call them by so mild a term—made in giving the order to issue priority orders to many departments and commissions and the freedom with which these orders were issued, without regard to whether they interfered with other priority orders and without any effort to co-operate with the railroads, is typical of very much that is now going on in Washington. It counts for activity, but it is "pernicious activity." It creates confusion rather than harmony.

#### AMERICANS IN MEXICO TRYING TO OFFSET PRO-GERMAN WORK.

S. W. RIDER, formerly of Kansas City, but for many years identified with Mexican railroad and financial matters, is now president of the American Chamber of Commerce of the City of Mexico. In a letter to the MANUFACTURERS RECORD, he writes:

As a reader of the MANUFACTURERS RECORD, I feel deep appreciation of the remarkable work that you are doing for our cause in the great war. If those in authority had foreseen, as the MANUFACTURERS RECORD did, and had taken action as you urged them to do, we would not be in our present unprepared situation. \*\*\*

We who live in Mexico and who are past the military age concluded that we could help our country as well as ourselves by organizing an American Chamber of Commerce, and we are trying to stem the German tide in this country as relating to American trade and American interests. In this work we feel that we Americans are entitled to receive and will receive support from manufacturers and exporters of the United States and from all who are interested in any way in their Southern neighbor. Indeed, this is a matter of interest to all our people, although they may not realize it.

The pro-German activity in Mexico needs to be overcome by the utmost pro-Americanism which can be developed in that country. Germany has sought to use Mexico as it has many other countries against the United States. Its campaign has apparently had no limit as to the dishonorable methods adopted nor as to the money expended.

We trust that the newly-organized Chamber of Commerce in the City of Mexico may prove a powerful factor in overcoming the evil of the pro-German campaign.

## AN OPPORTUNITY FOR PRESIDENT WILSON UNEQUALED IN HUMAN HISTORY.

**W.** H. PATTON, Shubuta, Miss., sends to the MANUFACTURERS RECORD a copy of an open letter addressed to President Wilson, in the course of which he said:

Realizing the great need and untold benefit to the nation and the bringing about of greater achievements from all industries and the protection of our soldier boys by your following the steps taken by Canada of making our country bone dry for the term of the war and one year thereafter, I want you to read Mr. Daniels' explanation of his "wine mess" order.

Hoping you may see your way clear to do so, and that the year 1918 may bring welfare and prosperity to you and this United States, and may it hold for our beloved country and those who bear its arms and do its service at home or abroad the achievement of a victorious, honorable and permanent peace.

Secretary Daniels' explanation of his wine mess order, to which Mr. Patton refers, is given in a very interesting story written by Mr. Howard A. Banks, formerly private secretary to Secretary Daniels and now one of the editors of the Sunday School Times. In the course of an interview furnished to Mr. Banks for the Sunday School Times, Secretary Daniels gave the following explanation of why he issued an order against drinking in the navy:

One day, shortly after I had become Secretary, a gentleman came into the department to plead for the restoration of a young relative of his who had been dismissed from the navy for intoxication. I showed him the record, which proved that this young officer had not only been drunk, but had at the same time made a public exhibition of himself. I explained that there was no course to be pursued but to act firmly and finally in approving the court-martial which had recommended the young officer's dismissal.

When I made it plain that the young man must inevitably pay the penalty, this gentleman protested earnestly and with much feeling against what he insisted was the injustice his young relative had received at the hands of the navy. "Now that he is the product of your system," said the visitor, "you have turned him out in disgrace." He then went on to tell me the following story of the young man's life. Said he:

"I am a Friend, a Quaker, and the boy's father was a Quaker. He was a little shaver when his father died, and the lad came into my home, and has always been to me as a son. I never even had so much as a glass of wine in my home, and when the boy left for Annapolis to enter the Naval Academy he did not know what the taste of liquor was like. I gave him to the American navy pure-hearted, unsullied, believing absolutely in the old-fashioned Quaker ideas in which he had been reared.

"In the seven years you have had him in the navy you gave him wrong ideas about drinking. You taught him that it was all right for a gentleman to have his toddy. You legalized the wine mess. You had a code that made a youth feel that he was narrow-minded if he turned down his glass at the table; but now that my boy has been ruined by you and your system, the navy kicks him out and puts a stigma on him."

Much more than this he said, but this is the substance of his strictures. He was a strong man, and his feeling for the youth whose drinking had wrecked his life was pathetically deep and genuine. When he went out I could not throw off a stinging sense of justice in his accusation. All day it haunted me that in the discharge of my official duty I had been compelled to approve a decree for which a navy practice was largely responsible.

For days I was oppressed by the thought that every young man in the navy, many coming from homes like that described by my Quaker visitor, was subject to similar temptation.

As time went by there were more court-martials—not many, but enough to add to my profound conviction that the old Quaker had pointed me out unerringly the path of duty.

I knew very well what the issuing of the wine-mess order meant. I counted the cost. I knew that many officers in the navy, temperate, honorable, as high-minded as King Arthur's knights, without fear and without reproach, would resent it, resent it bitterly; they would feel that the order would convey a wrong impression to the world.

I realized that the order would be assailed by a multitude of people who would regard it as puritanical. I anticipated that the protest against it might reach into the houses of Congress. But if I was at any time tempted not to take the step for any of these reasons, the reflection that every year there came into the navy hundreds of young men, some of whom might find their undoing in indulgence, made my duty plain. If I had not issued it I could not have rested with a clear conscience unto this day.

The foster father of the boy who had been disgraced and dismissed from the navy because of drunkenness presented the case to Secretary Daniels in a way which permits of no possible answer other

than that which Secretary Daniels gave in forbidding the use of intoxicants in the navy. It is a strong presentation, and this foster father told Secretary Daniels that he had given his boy pure-hearted and unsullied to the service of the country, and in the navy he had been taught that wine-drinking was proper. He had been ruined by the system in the navy, and now the navy had kicked him out because he had taken a drink too many.

No wonder Secretary Daniels felt a sense of personal responsibility, for every other boy ruined in the navy by drink had been ruined by the specific authority of the navy to permit and practically encourage drinking on board the ships of the navy.

Similar conditions to a large extent prevail in the army. Will President Wilson meet the responsibility which rests upon him in this great world crisis as Secretary Daniels met the responsibility which he had to face when he ordered drink out of the navy? Tens of thousands of young men, clean, pure-hearted, sober, who enter the army will doubtless, by reason of present conditions, come out of the army drunkards unless President Wilson says to the world that he is not willing to be sponsor for a system which offers and encourages the use of drink in the army.

Under President Wilson's power as a war measure, he has an opportunity vouchsafed to few men in human history to cut out intoxicants, to absolutely prohibit the manufacture and sale and handling of alcoholic drinks during the war. He could do this as a war measure, and no one could veto it. It is in his power to safeguard the morals and the lives, not only of the tens of thousands who will drink if given an opportunity, but of the millions whose lives will be endangered because of the drinking habit of others.

And to this value would be added the priceless value of increased efficiency on the farm and in the factory to produce food for mankind and munitions and ships with which to win the war.

Will President Wilson meet the issue regardless of the clamor of the accursed liquor interests of the country?

## "WITHIN THEIR LEGAL RIGHTS."

**S**HORTLY before Christmas, at a time when every car and locomotive was being pressed to its utmost capacity, when millions of people were suffering from lack of coal, and also for lack of other things which could not be handled because of inadequate and congested transportation, some Eastern men on a hunting trip arrived at Greensboro, N. C., too late to make their connection for a point to which they were bound. Because they had money and could afford it, they chartered a special train from the Southern Railway Co.

In doing this they displayed a supreme selfishness, and we regret that we cannot secure their names to pillory them before the public as men who preferred their selfish pleasure in gunning to the welfare of the nation. Every ton of coal which they were using for this purely pleasure trip, every man on the train and the cars and locomotive were all being used at the expense of the suffering of other people.

A leading Southern Railway official, writing the MANUFACTURERS RECORD in reply to an inquiry in regard to the matter, states that these men were "within their legal rights," and that the local railroad people who supplied the special train for a gunning trip complied with their legal duty, "because there is a tariff which authorizes anyone to charter and requires a railroad to furnish such service, like all other transportation service, great or small, for good or for evil, which is covered by tariff."

It is a misfortune that there is such a regulation, for this service was certainly "for evil," and had the local railroad superintendent halfway measured up to his responsibility he would have absolutely refused to charter a train for that purpose, regardless of the price offered, and he would have been perfectly justifiable in doing so, because every locomotive and every ton of coal and every car on the line was in demand for traffic vital to human life, and not to accommodate supremely selfish hunters, who should have been ashamed to be guilty of such an act.

We are glad to learn, however, from official

sources, that the railway people recognize "that at this time the service in question was a waste of fuel," and "that instructions have been given that no such special service shall hereafter during the war be furnished pleasure-seekers."

Now, if the railroad will give the public the names of these hunters, humanity will be benefited by letting the country know the men who could be so supremely selfish and who thought that their money justified them in this expenditure which added to their selfish pleasure.

They ought to be hunted out of the country with more vigor than they hunted the game.

The hunters and the Southern Railway Co. were both "within their legal rights," but neither were within their moral rights.

## GOOD FOR SCHWAB!

**C**HARLES M. SCHWAB of the Bethlehem Steel Co., though a great traveler and a great worker and needing for his work a private car because of his ceaseless activity, has announced that his car has been placed in storage until the end of the war. He does not believe that he is justified in calling upon the railroads to haul his car, notwithstanding the fact that he has to pay full price for doing so, in this time of stress and lack of transportation.

Mr. Schwab has set a wise example, but what a striking contrast is his action to that of a few hunters from the East who chartered a special train at Greensboro, N. C., two weeks ago to keep their appointment for a hunting trip merely for their own convenience and pleasure!

The Recording Angel will doubtless have an adequate report to the credit of one and to the eternal discredit of the others.

## GOVERNMENT SUGGESTION THAT NEW MUNITION AND KINDRED INTERESTS SHOULD NO LONGER BE CENTRALIZED IN EAST.

**F**OR years we have sought to drive home upon the Government and upon great business interests of the country the coming danger of the concentration of the munition and kindred interests in the East, but it seemed impossible to arouse either Washington or the business men of the country to the seriousness of the situation. At last light seems to be breaking, for a dispatch from Washington to the New York Sun says that a plan has been advanced to the various administrative offices by an expert of the Department of Labor who completed a survey of the labor resources of the country, and the opening sentence of the dispatch to the Sun is as follows:

Move the industry of the country to the available sources of labor supply instead of attempting to concentrate the mobile labor of the country at industrial centers already overcrowded and overburdened. \* \* \* Consideration, so it is said, is being given to the plan by the Shipping Board, the War Department, the Council of National Defense and the navy. It has been adopted in part by the Shipping Board. It is understood that the plan will be adopted generally soon.

This plan calls for "decentralization of the vast munition industries that have been concentrated on the Eastern seaboard and the location of all new work in the South and West, where there is available labor and in most cases available plants. At present it is pointed out that the industrial centers of the West, particularly the Central West, are being drained of their workmen, who are being crowded in the Eastern centers, where the crush is so great that there is not even housing room."

This is directly in line with the constant urging of the MANUFACTURERS RECORD for several years. We have been unable to see why the railroads of the East and the great leaders in iron and steel and munition making could not foresee the inevitable, even if the departments in Washington lacked the vision to comprehend the conditions that were being developed by the concentration of all war-making

activities in a limited area along the Atlantic seaboard.

The breakdown of the railroad system, the fearful congestion of traffic at New York, the inability to ship the vast amount of munitions and foodstuffs now on the wharves and in the warehouses of New York are all largely due to the shortsightedness of the Government, of the railroads and of the iron and steel and munition people generally. They all sought to do the thing which at the time seemed the easiest to do and to promise the largest immediate results, apparently entirely unable to comprehend the fact that a continuation of this kind of development in the East was not only injuring the nation's life, but was bringing about a congestion of traffic far beyond anything which the railroads could possibly handle with any facilities that were in sight.

If the Labor Department, having made a study of the situation, is now prepared to urge upon all other departments and upon business interests the danger of the present situation and the necessity of decentralizing our industries for war as well as for peace, it will have made a wise move and helped to solve a serious situation.

#### A WASHINGTON PROPAGANDA AGAINST BUSINESS AS DANGEROUS AS THE PRO-GERMAN PROPAGANDA.

**G**OVERNMENT control of railroads under the system inaugurated by President Wilson would never have been necessary but for the ceaseless antagonism of the last 10 or 15 years against railroads in Congress and out of Congress. Unhampered by unwise legislation it would have been possible for railroad owners to expand railroad transportation facilities in keeping with the growth of the country. But that is for the time being a dormant issue, to be reviewed when the war is over, in order to prevent the great danger of this Government undertaking continued control and possible ownership of our railroads.

If there was no other way to avoid the congestion created by the Government itself by reason of numberless priority orders, without any central head to decide which priority order had priority over some other priority order, then President Wilson's plan became a necessity.

All things considered, we believe that it is the best plan that could have been presented. It will not accomplish all that the country has been led to anticipate, but it will tremendously simplify the handling of the freight traffic of the country by compelling railroads under Government authority to do the things which the law has specifically denied them the privileges of doing so long as they were under private management. The Government itself now finds that it is necessary to abolish the Sherman anti-trust law and compel the railroads to pool their traffic and handle it to the best possible advantage, entirely without regard to the vigorous and even vicious way in which political officials have sought an extreme interpretation of the anti-trust laws against railroads.

The Government also finds it necessary to ask of the Supreme Court what is practically a suspension of all action now pending against the great corporations which have been hounded by the Attorney-General's Department, since it is found that the existence of these corporations in their present shape and their ability to carry on vast operations of benefit to the Government and to the people makes it unwise that their operations should be at all interfered with at present.

This war is thus teaching us some lessons which were sadly needed. It is teaching the nation that the very corporations which have been maligned and hounded from pillar to post must now be depended upon by the Government for success in war. Had the moves against these various business corporations and against the railroads been handled in a spirit of perfect fairness and a desire to secure even-handed justice, honestly seeking to suppress the wrong and uphold the right, it would never have been necessary for the various governmental departments and commissions to seek through the press to raise popular clamor against them, hoping

that this clamor or mob spirit would justify their acts and perchance influence the courts.

Republicans and Democrats alike have been guilty in this campaign of seeking for their own personal advancement to arouse public hatred when in honesty and honor they should have sought to have the laws properly interpreted without bias or without trying to evoke a mob spirit for the benefit of these public agitators holding positions of trust.

The propaganda of pro-Germanism has scarcely been worked more vigorously and to a greater injury to this country than the propaganda which for years has emanated from Washington against corporations and railroads, for this Washington propaganda has had for its exclusive purpose a desire to arouse a political hatred, to engender class spirit in order that the man or the men who worked the propaganda might ride into still higher offices on the mob-engendered spirit.

Against this propaganda the country must set its face firmly. It must say to men in public office, from the presidential chair to all the underlings, whether these positions be held now or in the future by Republicans or by Democrats, that he who seeks to raise the class hatred spirit in this country, he who fills the newspapers with denunciation of men of integrity, and of corporations seeking honestly to serve the country, as well as he who misrepresents the labor interests—and sometimes, but not often, the latter is done—must cease that kind of pernicious activity.

We are today in danger by virtue of this class hatred, notoriety-seeking propaganda which at times has emanated from the Interstate Commerce Commission, sometimes from the Trade Commission, sometimes from Cabinet officers, and often from men who hold inferior positions, but who get the ear of the press, and occasionally from the presidential chair itself, of seeing a repetition in America of the chaotic conditions which exist today in Russia.

One of the ablest men in America, John R. Mott, who was a member of the Root Commission to Russia, and that was his fourth visit to that country, recently in a public address stated that he had found more truly great men in Russia than in any other country in the world, even including the United States. This is in harmony with what many other people have said about Russia. But notwithstanding these truly great men and their tremendous effort to save Russia, that country is the hotbed of revolution and counter-revolution, generated to a large extent by anarchistic and socialistic men from the United States who swarmed to Russia during the past year. These men are flitting back and forth from one country to another, and they and their fellow-workers are seeking to do in the United States exactly what they have done in Russia. The seed which they are sowing, of anarchy and revolution, falls on a soil fertilized and deeply plowed by the vicious activities of the propaganda work, which for years has had Washington as its center, against the business interests and the business men of America, vigorously worked, not for the good of the public, but solely for the individual advancement of the men responsible for this campaign of class hatred.

#### THE POSSIBILITIES OF VAST EVIL OF THE RAILROAD BILL AS IT NOW STANDS.

**W**E believe that President Wilson has made a great mistake in asking that the control of the railroads shall continue in the hands of the Government not only until the end of the war, but indefinitely after that, until the bill is repealed by Congress. It will be very much better if the conditions be reversed and that after the war the railroads should immediately be returned to their owners, unless Congress at that time should find it wise to continue Government management.

In our effort to save democracy and save ourselves we are in serious danger of developing the rankest socialistic spirit throughout the country and of

destroying business initiative and the power of American business interest. We may be able to stand this condition during the war, as a war measure, but nothing could be more disastrous to the future of the nation from a viewpoint of individual and national freedom and of business expansion than the permanent domination of the railroads and all other business interests by the National Government. That would be State socialism, pure and simple. It would carry that which may be necessary for a war measure into peace times, and there would never have been a need for the Government taking over the railroads as a war measure had not the Government for years so hampered the development of railroads as to have brought about the railroad breakdown. The railroad situation, the inability of the coal mines to supply the needs of the land, are all due, without question, to a most unwise, short-sighted policy, an absolute lack of business sense on the part of many Government officials, past and present.

It may be in the power of the President, because of war conditions, to drive through Congress his bill for the indefinite control of railroads, but we should regard this as a measure destined to be disastrous to the future of the country.

We trust that in the interest of the country President Wilson will recognize that in his suggestion of control after the war he has made a mistake and withdraw that portion of his message. If he does not do so, we believe it is incumbent upon Congress and the business interests of the country to vigorously, to the bitter end, oppose such rank socialism.

The time has not yet come when we can afford to turn this country over to socialism and forever bury all true democratic principles. We have long been headed in that direction. Do not let us reach the end at railroad speed. It is time to call a halt.

#### France Greatly Increases Coal Production.

An increase of 7,000,000 tons in the amount of coal mined in France this year, compared with the output for 1916, a surplus that promises a speeding-up of munition manufacturing and emergency shipments to Italy, is set forth in an official bulletin just received by the Philadelphia Bourse from the Paris Chamber of Commerce.

Most of the increase took place in the southern regions within a short rail haul of Italy. At the same time the Pas-de-Calais fields, a part of which are in German hands and the remainder within range of enemy guns, showed a considerable gain. By the increase of mining production any immediate call by the Allies on the output of American mines is believed to be postponed for the present.

In commenting upon the year's gain in coal mining, the bulletin says:

"In spite of the difficulties caused by the occupation by German troops of several important centers, the production of French coal is continually progressing. The monthly output rose in a year from 1,771,769 tons to 2,410,039 tons, or 36 per cent."

"Each of the coal fields has taken its part in the common effort. The Pas-de-Calais mines, some of which are in the hands of the enemy, have increased their output by 50,000 tons a month since May 1. The Loire coal fields yielded about 400,000 tons more than the previous year. In the Gard fields the increase exceeds 33 per cent. The secondary fields of the Tarn, Seine-et-Oise are also helping with the increase in the general output, which enables us to conclude, judging by figures for the last four months, that the total yield for 1917 will be over 28,000,000 tons, whereas in 1916 it realized hardly more than 20,000,000 tons."

The output of Texas mines for 11 months of 1917 and the estimated output for December, as shown by preliminary figures reported by Charles W. Henderson of the United States Geological Survey, Department of the Interior, amounted to \$1000 in gold, 579,000 ounces of silver, 160,000 pounds of lead and 20,000 pounds of copper, as compared with \$414 in gold, 653,455 ounces of silver, 49,927 pounds of lead, 99,569 pounds of copper and 232,388 pounds of zinc in 1916.

## Efficiency of the Army Threatened by Total Incapacity of Secretary Baker

[Special Correspondence Manufacturers Record.]

Washington, D. C., January 7.

Sworn testimony, given by officials of the United States Government at the hearings of the Senate Military Affairs Committee, proves conclusively that the War Department, under Secretary Newton D. Baker, has for a long time been close to collapse.

The remedy for this condition, delaying the prosecution of the war and threatening even the safety of the army, clearly is the establishment of a separate Department of Munitions. Secretary Baker previously has opposed this step, deemed necessary in England one year after the European war began. Baker didn't want his authority divided. Senator Chamberlain, Democratic chairman of the Senate Military Affairs Committee, has introduced a bill for the creation of the proposed Department of Munitions, and the friends of President Wilson—the friends of the nation—hope that he will approve it.

There is but one excuse which can even be suggested for the failure of the War Department to function properly. This excuse is that the army was expanded to ten times its peace size. The excuse will not stand. The navy personnel was expanded to five times its peace strength, but the transition was accomplished with ease. Rear-Admiral McGowan, Paymaster-General of the Navy, began to prepare for war the very day he was named as head of the Bureau of Supplies and Accounts, which combines the functions of purchasing, distribution and payments. He has been doing for the navy what General Crozier and General Sharpe were expected to do for the army, as chief officers of Ordnance and Quartermaster's corps, respectively. He has succeeded notably, where they failed miserably.

The veil of censorship has been thrown aside by the Senate Committee, exposing the complete collapse of the Quartermaster-General's Department. When General Sharpe appeared before the committee he made a woeful display of weakness. He could not answer the questions asked him. He could not tell why carloads of blankets and clothing remained in freight cars while the cantonments were clamoring for such supplies.

Explanations given by General Crozier as to the reason for the failure to supply the troops with rifles and ammunition were equally unsatisfactory. The admission of failure by Baker was contained in his displacement of Sharpe and the appointment of General Goethals as Quartermaster-General. General Goethals accepted the post reluctantly. One of his first acts was to accept the resignations of General Cruz and General Smith, the two chief assistants of Sharpe. He will appoint civilian assistants.

Col. Samuel McRoberts, who, until recently, was vice-president and executive manager of the National City Bank, is now virtually in charge of the Ordnance Department. He is reorganizing it on a business basis. He is sending boards of officers—reserve officers who were recently in private business and who have demonstrated their business knowledge—to the various industrial centers to find picked experts who will accept commissions.

These changes are quite transparent as an effort by Mr. Baker to save himself from the gathering storm, which has taken the form of a pretty general demand for his resignation. When a bigger man would have been building up a strong organization, Mr. Baker had been drawing around him as assistants little men who talked and wrote glibly. When foresight would have prevented the present situation, he was appointing as his assistants one editor-idealistic, Walter Lippman of the New Republic, and two college lecturers, Professors Keppel and Frankfurter. Now, after months, he is sending out the S. O. S. for bigger men.

The supply situation, manufacturing problem and the problem of distribution will not be remedied by the appointment of a few strong subordinates. The head of the organization, through whom all matters of policy must pass, has shown himself to be narrow and slow to change with the changing times. Either Baker must get out, or else the manufacturing, supply and distribution

work must be turned over to a new Department of Munitions.

Defective ammunition admittedly was turned out at Frankford Arsenal, and there have been many reports that other ammunition was similarly defective. The Senate investigation will reveal these conditions.

There has been a lack of system even in supplying the Allies since America entered the war. E. T. Stettinius, one of the partners of J. P. Morgan, was in full charge of purchasing for the Allies. He proved to have genius. The American Government has now taken charge. The weakness of the present situation would be improved if Stettinius were placed in charge of the proposed Department of Munitions, but it is hardly likely the Administration will do such a thing.

### Kaiser Prophesied That Germany Would Wage War That Would Make Civil War Child's Play.

[Jacksonville (Fla.) Metropolis.]

"When the present Emperor of Germany was Crown Prince he was talking to a personal friend of mine, an ex-Confederate officer, who held an important position with the Russian Government, and which brought him in close touch with diplomats and crowned heads of Europe. In discussing our Civil War to the officer, the Crown Prince, now the Kaiser, said: 'You think you had a great war in America with big armies and great battles, but when we are ready we will have a war in Europe which will make your Civil War look like child's play.'

The above statement was made by Richard H. Edmonds, editor of the MANUFACTURERS RECORD, who was a visitor at the Hotel Windsor today en route to Daytona with his family to spend the winter. It demonstrates the length of time Germany's ruler has been preparing and contemplating to conquer Europe. In speaking of the terrible damage German propaganda is and has been doing in this and other countries in misleading the people, Mr. Edmonds said:

"This statement is repeated only to show the definite determination on the part of German military spirit under the Hohenzollerns to bring on the present war whenever Germany felt fully ready to conquer Europe. During the last 15 years, many German officers have openly and with freedom threatened this country, and for the past 25 years Germany has been preparing for this disastrous war, carrying out its plans often freely promulgated by its philosophers, diplomats and military leaders.

"During that period it has aggressively carried on its propaganda through American schools, paid agents and spies, in order to create in all countries a spirit which would welcome Germany's domination of all countries. Throughout the United States there has been and is a definite active propaganda in the interest of Germany. This propaganda is absolutely without one iota of moral integrity; it will lie; it will swindle; it will encourage murder, the blowing up of munition plants, destroying food supplies without regard for innocent people who might be killed or suffer from starvation. It represents the blackest crimes in human history. This is typical in the cold-blooded murder of innocent women and children who were fed to the sharks by the diabolical sinking of the Lusitania.

"The crimes in Belgium, France and Serbia openly admit frightfulness as a means to destroy enemies and overawe others and keep them from becoming enemies from fear of the same fate. This struggle is one absolutely essential to save our existence, but no matter how long and desperate, just as sure as there is a God Almighty above right will win.

"This war is the greatest tragedy the world has ever known except that upon Calvary, when the Son of God Himself died to save mankind, and every soldier and sailor who dies in defense becomes a savior of mankind. A few weeks ago I had the pleasure of hearing Lord

Northcliffe speak of the absolute unpreparedness of England and the preparedness of Germany when war was declared. He stated at the beginning of the war England had a total of 20,000,000 rounds of ammunition, while Germany had over four thousand billion rounds of ammunition. This almost inconceivable difference in preparation for war explains to a large extent the tremendous power which Germany has been able to display during the war's conduct."

### A Strong Statement of a Desperately Dangerous Situation.

Halliburton Hall,

Clarkston, Ga., December 28.

*Editor Manufacturers Record:*

Wise men are governed by facts; fools are not.

Your editorial, "Turn the Incompetents in Washington Out," strikes the ignorance of the incompetents and has exposed the naked fact that our nation has to deal with.

Some eight years ago, when you laid the facts before the nation about the direction in which our transportation companies were headed and pleaded for relief, no heed was taken of the facts that were set forth. Today they are inadequate. Could an act of a Government be more foolish? There is nothing to be found in the world to equal it.

Three years ago, when you held forth the naked glaring fact to the nation of its appalling state of unpreparedness, the incompetents in Washington appeared both blind, deaf and dumb. Not until after with all their forces they failed to capture one bandit, Villa, were their slumbers in the least disturbed.

Last summer, when you held forth the naked facts about our nation's coal supply and the ignorant and childish way in which it was being handled, the fog of ignorance was so dense in Washington that the egotism has since caused it to freeze.

Now comes the report that 300 soldiers' ears have frozen in one day. Billions have been appropriated for preparedness, and though we have been in war eight months, ships, guns, clothing and munitions for full equipment are not yet even in sight.

The naked fact stands out that unless the advice is taken at once, "Turn the Incompetents in Washington Out," our nation is headed straight for hell. These are strong words, but they are true. Criticising what the MANUFACTURERS RECORD says or what W. E. Wimpy says is not going to change the truth one whit. The facts are as you have stated them. We are in war with the greatest power this world has ever known. It is asinine to think we are a power, unless we mobilize our men and resources and put brains at the head of the mobilization.

The time has come when America must put men with records of capacity in office and quit relying on stump speakers and vote getters and hand shakers. We have very few men in office today that an owner of a department store would turn over to any one of them to manage. And think of it, the nation has turned over its sons and its property, and everything there in it, to these "squirts!"

We need big men in office; railroad men with records, civil engineers with records, packers with records; in fact, business men and big statesmen, not men who were failures at the time of the elections or possible make-shifts.

The time for praising blunders and incompetents should stop and the truth of the facts should be known and acted upon. We are fools to think the enemy has not got the measure of our officials. We are simply being put to sleep with the dope of blarney on our joy ride to hell.

W. E. WIMPY.

### Appreciated by Every Good American Citizen.

P. W. POWELL, Superintendent of Streets and Public Improvements, Austin, Tex.

I have read the MANUFACTURERS RECORD with much interest, and I wish that every woman, man and child in the United States would read your editorials.

I wish to express my approval of your good work. You are hewing straight to the line. Keep on the good work. It is appreciated by every good American citizen.

# The Nitrate Plant Now Building at Muscle Shoals

LONG, USELESS AND COSTLY DELAY IN STARTING OUT.

[Special Correspondence Manufacturers Record.]

Washington, D. C., January 7.

The beginning of the new year witnesses preparations well under way for the development of one of the most important of the nation's enterprises, both for peace and for war, namely, the work of establishing the great Government nitrate plant at Muscle Shoals, on the Tennessee River, for the manufacture of nitrates for munition purposes and for fertilizers.

The Government appropriation of \$20,000,000 will be expended in its entirety, with every prospect that the plans already formulated will call for the expenditure of millions in addition. The earlier plans for an "experimental plant" have passed before the exigencies of the times.

With Frank S. Washburn, president of the American Cyanamid Co., as chief adviser to the Government in construction matters, there is every assurance that construction work will be speeded up to the highest point. Not only have the officers of this company contributed their voluntary services to the country in the erection of the nitrate plant, but they have also contributed the process of the company for making nitrates.

Government officials directly connected with the nitrate project are reticent as to all details. No statement could be obtained from them as to the methods of manufacture. They admit generally only the extent of operations that can be obtained from a visible inspection of the activities now in progress. The statement given currency that 15,000 workmen will be actively engaged in construction work within thirty days is regarded by them as somewhat in excess of the present outlook, although "a high stage of activity" is granted as in early prospect. Just how soon the plant will be in operation is another point on which the army officers in charge of the general scheme refuse to make any statement. They hardly look for this to be realized by May, however, declaring that an estimate of that sort is overly optimistic. Furthermore, no word can be obtained from them as to the character of power to be utilized, or from what point the water power is to be drawn, presuming that water-power will be depended upon to turn the machinery of the immense plant.

Despite this reticence and the repeated disclaimers of official certitude as to what is in immediate contemplation, the most logical conclusions can be drawn from the eventual selection of Muscle Shoals as the permanent site for the plant as originally provided for by the Government, as well as the abandonment of the "experimental" idea in favor of the full plans shortly after Muscle Shoals were selected. The only acceptable inference is that while electric-power from plants of the Alabama Power Co. may be used for a while, the full development of Muscle Shoals as a great hydroelectric center must inevitably come.

That the Government is cognizant of the urgent needs of an early completion of the plant is manifest. If such recognition were lacking it would be brought home by the fact that arrangements are now in progress for the purchase of 100,000 tons of Chilean nitrate for fertilizer use by the farmers under the provisions of the food-control act. The appropriations for that purpose total \$10,000,000. Speaking of the subject, Secretary of Agriculture Houston said in a recent statement:

"I have given a great deal of thought and attention to the nitrate question. I have been in daily touch with the War Industries Board, which was to purchase and deliver the material at the seaboard, and also with the Shipping Board. Arrangements were completed several weeks ago, through the War Industries Board under the immediate supervision of Mr. Baruch, to purchase approximately 100,000 tons of nitrate of soda in Chile in accordance with the authorization for such purpose in the food-control act. Because of disturbed shipping conditions it has been impossible until recently definitely to secure facilities for transporting the nitrate in whole or in part. Within the last few days preparations have been com-

pleted for the delivery at the seaboard during January of 18,000 tons, and every reasonable assurance has been given that supplies up to the 100,000 tons for the ensuing months will be delivered. Every possible effort will be made to make certain these deliveries, but it should be understood that on account of existing situations, circumstances over which there is no control might intervene."

This situation furnishes its own commentary on the delay of more than a year in beginning work on the construction of the Government nitrate plant. Even if the prospect of having the plant in operation by the first of next May represented a too optimistic view, the wasted year covers a much longer period entirely lost, and for no understandable reason, seeing that the investigators eventually got back to the one logical site.

It is probable that the first nitrate shipments will go to Jacksonville and Savannah, Florida, should have fertilizer earlier than January, but receipts in that month will largely meet requirements. Secretary Houston sets the price approximately at \$75 on board cars at the seaboard, with freight charges and the State fertilizer tag fee to be added. Arrangements are now being made for the distribution. The nitrate thus secured will be sold only to farmers for their own use during the coming season, and generally in amounts not in excess of that used by them heretofore.

The reticence observed by Government officials regarding the construction of the nitrate plant itself, in view of the general knowledge of the plans now in progress, is explainable only on the grounds of the general policy of not giving out any detailed information that might be of advantage to the enemy.

## Construction Plans for Government Ammonium Nitrates Plant.

Government officials and construction company representatives are locating at Florence, Ala., to proceed with the construction of the ammonium nitrates plant which the Government will build at a cost of \$30,000,000 at South Florence, the official name of the site, the initial unit to cost \$3,000,000 and be put in operation upon completion while the additional units are being installed. The Air Nitrates Corporation, controlled by the Government, will operate the plant, J. W. Young of New York being its superintendent of construction at the site. Contract for designing and constructing the complete plant, with the exception of the power plant, for the manufacture of ammonium nitrates from the atmosphere has been awarded to Westinghouse Church Kerr & Co. of New York, F. B. Caldwell of New York being its resident engineer at Florence.

This contract provides for the construction of a mile of manufacturing buildings, dwellings for workmen, streets and sewers for the industrial city which will be established, as well as for other public improvements. The contract for manufacturing and furnishing the steel structural shapes for the buildings has been awarded by Westinghouse Church Kerr & Co. to the Nashville Bridge Co. of Nashville, Tenn., and this company's president, A. J. Dyer, is now in New York with his engineers arranging the details of the steel production required. Lumber to the extent of 3,000,000 feet for the nitrates plant construction will be furnished by the Alabama-Mississippi Emergency Bureau, composed of lumber manufacturers of Alabama and Mississippi.

In order to furnish electricity during the construction of this air nitrates plant and for its operation when completed, it is understood that the Alabama Power Co. of Birmingham has decided upon an expenditure of \$3,000,000 for the enlargement of its steam-driven electric generating station on the Warrior River. The adequate development of the 600,000 horse-power available at Muscle Shoals, near the plant site, is expected to follow by or through the Government.

## Great Industrial Activity in the Coming Year.

[The Bache Review, New York.]

The vast unsettlements of the world war have shaken the very foundation of economics and dimmed the light of precedents. It is impossible reliably, in this thick fog of unheard-of happenings, to forecast the future. Consequently, caution has been the adopted policy of industry and finance, as it feels its way along from day to day.

Before our declaration of war we had developed the greatest growing commercial activity, and this has continued with little apparent difference, except that a vast amount of the volume has been transferred from supplying civilian wants to caring for those of the Government. Such decline as has taken place here and there in the commercial progress has been due to the shortage of man power, of coal and coke, and of facilities for distribution.

The transformation from the arts of peace to those of war is becoming widespread and will continue until the whole great throbbing machinery of our industrial life is concentrated upon the war.

One thing seems assured—that while the war lasts the volume of business will keep up to the very highest level which the country's equipment will at all allow. This is because the requirements of our own Government are already planned to reach many billions and because this year the purchases of the Allies are certain to continue at the highest figures. Also, a new cause of demand has sprung up through the Government control of railroads, which will furnish credit for purchases running up presumably into billions of dollars.

Whenever in the past history of the country conditions have allowed railroads to make purchases for their full needs, this volume of demand has invariably brought prosperity to the whole country. It seems reasonably certain that the urgent needs in transportation will decide the Government to bring the roads up to the highest efficiency. This can only be done by the expenditure of an enormous amount. The systems are ten years behind the times. The ordinary estimate is that the railroads of the United States need \$1,000,000,000 a year to keep them abreast of requirements.

We have, then, a series of necessary expenditures which must keep every industrial agency fully employed throughout the year. This means that every person who can work—including women—will have enough to do at full wages, and it is impossible to see that anything but prosperity can result for the laboring classes, notwithstanding the high cost of living.

As to capital industrially employed, while price regulation will prevent unlimited profits, the margin will be larger at least than in normal times, and so, even with excess profits deducted, most enterprises will reap heavy net returns.

These conclusions of continuing high industrial activity for the present year at least are based upon the expenditures already planned and most of which will be completed without regard to the course of the war. While caution will continue to influence business, this need not interfere with confirmed belief in the country's ability to industrially and financially weather the storm, and this belief will add further courage for the exertion of every individual energy to help win the war.

## Government Reported to Be Interested in Development of North Carolina Ore Mine.

Raleigh, N. C., January 5—[Special.]—Two officers of the United States Army are in this State looking into matters relating to the further development of iron ores in North Carolina. The chief mine is at Cranberry, in the extreme northwest. The same bed of ore, of notably high quality, extends across the northern part of Ashe county. There is to be a development of the iron-ore bed in Person county, north of Durham, and not far from the Virginia line.

The Carolina Washboard Co. at Raleigh, N. C., is adding a branch to its business, this being the manufacture of clothespins, for which sweet gum wood, which is particularly abundant in that region, will be used. The machinery for pin-making is now being installed.

# Over \$400,000,000 for Steel and Wooden Ships Now Building in South

## WHOLE-HEARTED RESPONSE TO NATION'S CALL FOR AN EMERGENCY FLEET—ACTIVITY IN EVERY PORT BETWEEN BALTIMORE AND THE RIO GRANDE

A summary of the main shipbuilding activities along the South Atlantic and Gulf Coast from Maryland to Texas shows the vast aggregate value of over \$400,000,000 in ships now building or under contract. About \$175,000,000 is represented by work in hand at shipyards at Baltimore and Hampton Roads, or nearly one-half of the total, leaving \$225,000,000 as the amazing sum representing practically new shipbuilding activities that have sprung up in the South since the war began, because but a very limited amount of shipbuilding was carried on prior to the war at any Southern ports except Baltimore and Newport News.

Now there is not a port from Baltimore to Port Aransas, Texas, that has not one or more shipyards speedily turning out wooden or steel vessels of varying sizes. At some of the main ports enormous expansions are planned at the older established yards, while several new plants that will rank well with the country's other big shipyards are rapidly being created.

At Baltimore ships are under way or planned that will cost approximately \$75,000,000, with an indication for a much wider expansion at an early date, as some of the large shipyards have big contracts pending which are likely to be closed at any moment and which will require considerable extension in plant equipment to take care of them.

In Hampton Roads, where the great Newport News shipyard and the Portsmouth Navy-Yard are located, and new yards are being established at Norfolk and Hampton, work in hand will aggregate over \$100,000,000 in value, making this section what has been aptly termed the Clyde of America.

At Wilmington, North Carolina's main seaport, vessels valued at \$1,000,000 are under way. Charleston, South Carolina, comes quickly to the front with enlargements of its present shipyards, the construction of a dry dock, and establishment of a new plant of large size that has a contract for steel fabricated ships valued at \$20,000,000.

Georgia furnishes its quota at the ports of Savannah and Brunswick, the former having three plants with contracts for 30 ships valued at \$30,000,000, and the latter six yards, five of which have been established during the past year. In Florida both Jacksonville and Tampa have made wonderful strides in shipbuilding from the small yards they had, and now they have an aggregate of work building or under contract that will total in value over \$50,000,000.

Alabama presents Mobile, which, with the big plant of the United States Steel Corporation, promises to become one of the greatest shipbuilding centers in the country, if not in the world. Here are five plants already in operation with contracts for over \$15,000,000 worth of vessels. These will be backed up by the great shipyards of the Steel Corporation, which secured 10,000 acres for its plant, and is spending over \$12,000,000 at this point and over \$15,000,000 at Fairfield to provide the necessary equipment and materials to make this one of the nation's greatest shipyards.

Mississippi gives Gulfport, Pascagoula and Biloxi, all of which have made great strides, especially Pascagoula, which has contracts for 45 ships—30 wooden and 15 steel. In Louisiana there is an important development in the New Orleans district, while all along the Texas coast great activities are being shown, conspicuously at Orange, Beaumont and Houston, where shipbuilding has become an industry of first magnitude, with work under way or in hand that will aggregate many millions of dollars.

Thus, it will be seen, practically every Southern port from the Chesapeake Bay to the Rio Grande River is busily engaged in meeting the demands of the Government for ships to help win the war; and this condition is fulfilling in every sense of the word the oft-repeated prophecy of the MANUFACTURERS RECORD that Southern ports could be successfully developed for shipbuilding because they possess in an unusually complete manner practically all of the advantages for this industry, and are backed up by a climate that permits outdoor work to be continued the year around with the least loss of time.

Having created this wonderful shipbuilding achievement under pressure of national necessity and to meet the Government's urgent need for ships to carry on the war successfully, let us see to it that the millions of dollars and the countless value of brains and energy invested in these splendid enterprises shall not be for the period of the war alone, but shall form the basis for permanent industries that shall once again place America in the forefront of the maritime nations of the world and make the Stars and Stripes a familiar sight in every ocean and in every clime, thus regaining our cherished prestige of years ago when we led the way in traversing the endless paths of the sea and established traditions that even today thrill us with the glory of achievement made by our forefathers.

### Baltimore's Important Activities in 1917 and Enlarged Plans for 1918.

The year 1917 was a record one in the annals of Baltimore shipbuilding history, for nine yards in the immediate vicinity produced wooden and steel ships and wood barges totaling 127,920 tons, in addition to pro-

duction of tugs, barges and lighters at these and other plants totaling thousands of tons. But the owners are looking ahead to 1918, and official estimates from each plant show that more than 400,000 tons will be launched. Improvements to practically all of the plants have been completed, and the recently established plants are about ready, so that, beginning with January, 1918, the plants

will devote their entire energies to producing new ships. The number of men employed at the plants will be practically doubled, so that by January 1, 1919, upwards of 15,000 men will be engaged in the work.

In the Baltimore section two concerns will turn out about twoscore steel ships next year. They are the Baltimore Dry Docks & Ship Building Co., with three plants, and the Bethlehem Steel Co. plant at Sparrows Point. Four plants are engaged in building wooden ships. They are Maryland Shipbuilding Co. at Sollers, Md.; Coastwise Shipbuilding Co. at Locust Point, Charles L. Rhode & Sons Company at Highlandtown and H. E. Crook Company, Inc., at Locust Point. At least a score of wooden vessels will be produced by these plants.

There are 39 steel ships and 38 wooden ships under construction here now. Only three plants in the section are working on contracts from the Emergency Fleet Corporation. They are the Baltimore Dry Docks & Ship Building Co., eight steel cargo ships at 8800 tons

#### Steel Shipbuilding Plants.

	Ships under contract.	Ships on ways.	Launched in 1917.	Estimated tonnage in 1918.	Approximate value of work, 1918.
Baltimore Dry-Docks & Shipbuilding Co.	23	5	8	42,400	\$90,000,000
Bethlehem Steel Co.	12	7	7	71,900	30,000,000
Riter-Conley Manufacturing Co.	4	1	1	2,570	3,000,000

#### Wood Shipbuilding Plants.

Coastwise Shipbuilding Co.	10	6	5	\$250	15,000	800,000
Henry Smith & Sons Co.	8	4	..	..	28,000	2,400,000
Arundel Shipbuilding Co.	6	2	..	..	12,000	700,000
Maryland Shipbuilding Co.	6	2	..	..	21,000	2,100,000
H. E. Crook Co., Inc.	6	2	1	1,400	8,400	400,000
Chas. L. Rohde & Sons Co.	2	..	..	2,000	2,000	165,000
Total.	77	32	24	127,920	401,800	\$69,565,000

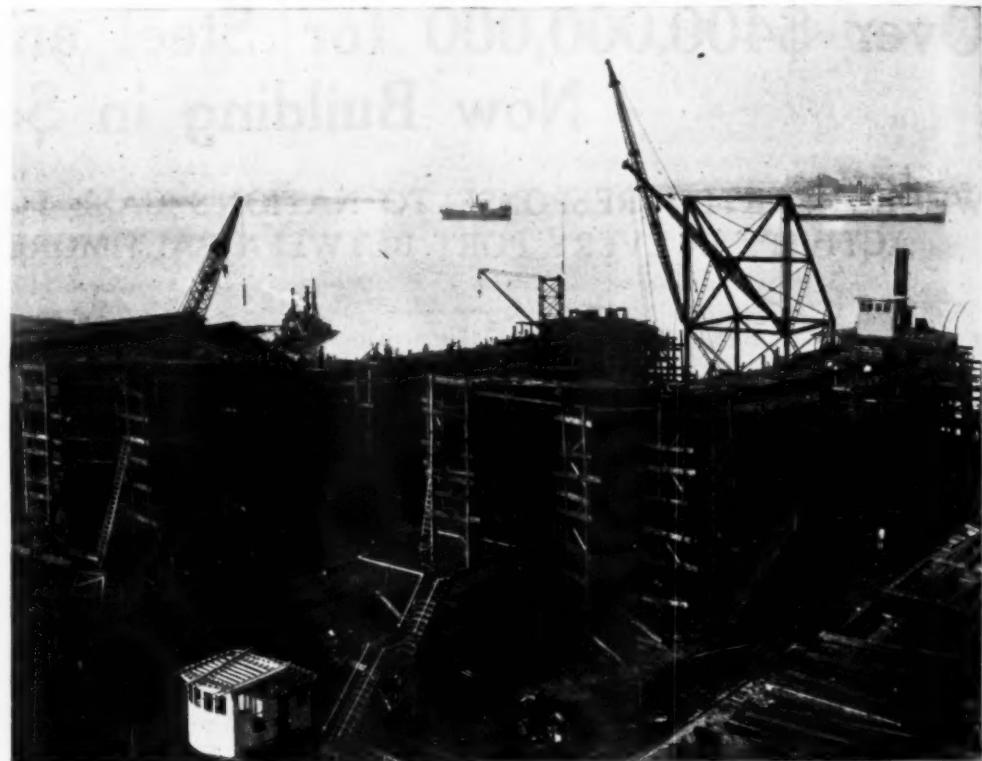
deadweight each; the Henry Smith & Sons Company, eight standard 3500-ton wooden ships of the Ferris type; the Maryland Shipbuilding Co., six standard wooden ships of the Ferris type. All the ships under construction at the Bethlehem Steel Co. plant at Sparrows Point have been requisitioned. It is understood that within the near future a contract will be given the Bethlehem plant for at least 40 all-steel ships. The plant is splendidly equipped, and its launching ways could be added to and new ones built. Its shops and yards are already of sufficient size to take care of a great amount of additional ships. The Riter-Conley Manufacturing Co. at Fairfield has large capacity for new work, and negotiations on several new contracts are pending now. Patterns and molds for plates and materials are made at Fairfield and sent to other plants controlled by the Pittsburgh plant to be completed, and are then sent to Fairfield to be fabricated. At present there are four ways, all of which will be occupied shortly, and there is room for additional ways on the company tract. The Crook Company will be able to take care of additional shipbuilding if work proceeds as speedily as during 1917. Hence it will be seen that the local plants could turn out even more than the 400,000 tons of ships for which they now have contracts. Considering the plants located along the branches of the Patapsco River and bay that are engaged in constructing wooden ships and barges, the total tonnage should be in the neighborhood of 500,000 tons for 1918.

Beginning this month, the new boats will begin to leave the ways. The Riter-Conley Company expects to launch an additional tanker of 2870 tons; the Baltimore Dry Docks & Ship Building Co. will launch a 6200-ton steel cargo ship; the Coastwise Shipbuilding Co., a wooden barge of 1650 tons; H. E. Crook Company, Inc., a second barge of 1400 tons, and the other plants may complete boats. Each month there will be many launchings, but after June 1 the yards will be the scene of greatly intensified activities.

As to prices obtained, steel ships are now bringing from around \$200 to \$250 a ton deadweight. The wooden ships being produced for the Emergency Fleet Corporation will average about \$100 a ton. The wooden barges being built in the section will bring from \$50 to \$75 a ton.

#### Baltimore Dry Docks & Ship Building Co.

The Baltimore Dry Docks & Ship Building Co. plans call for the production of more steel ships than have ever been produced in a single year in this section. A total of 23 ships are under contract, and officials here



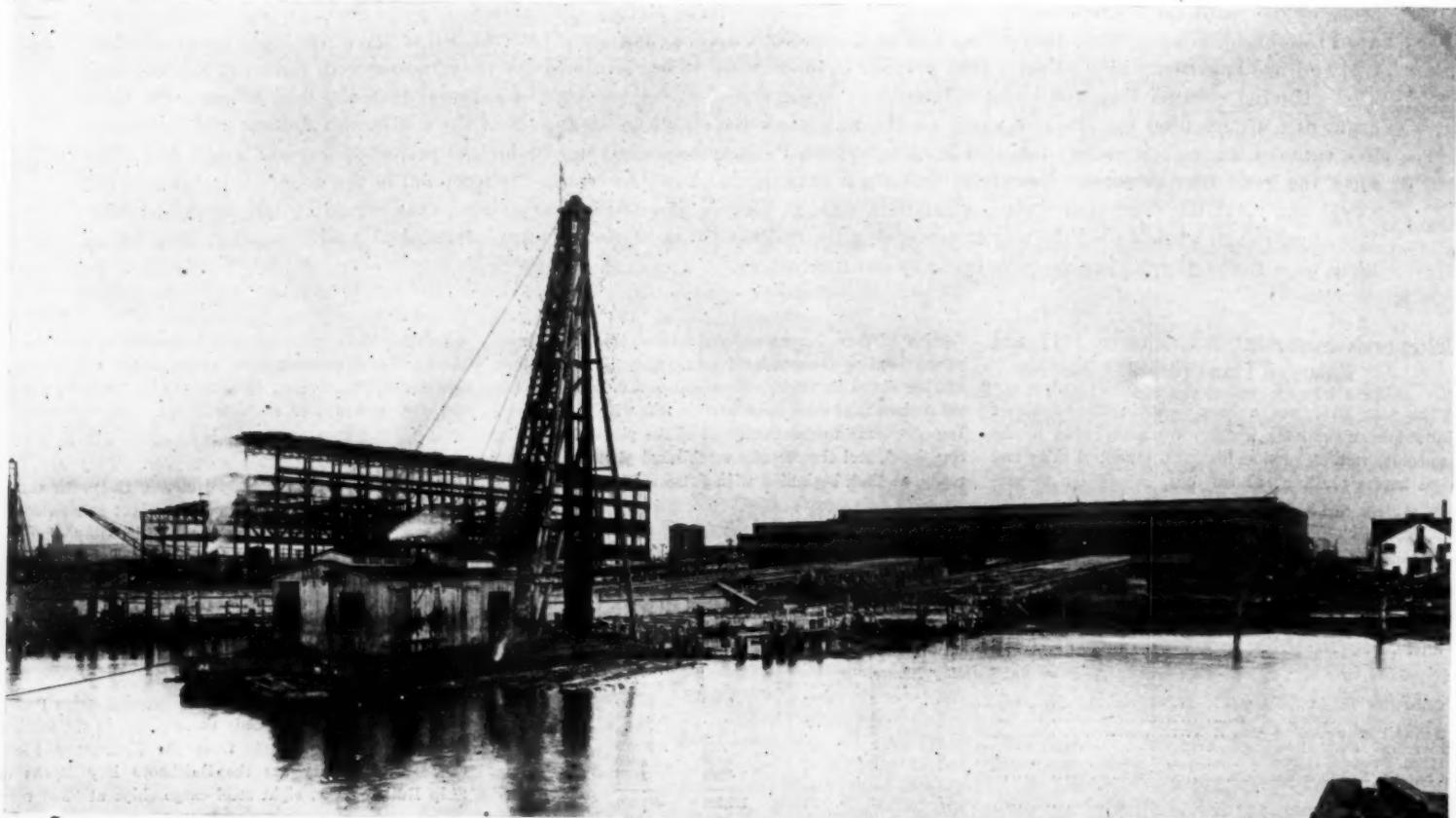
STEEL SHIPBUILDING PLANT, RITER-CONLEY COMPANY, BALTIMORE, MD.

#### Bethlehem Steel Co.

believe that ships with a total deadweight tonnage of at least 150,000 tons will be produced. Of the company's three plants, one will handle general repair work, also construction; at another steamers of 6200 tons deadweight are to be built, while at the third eight ships of 8800 tons are to be built for the Emergency Fleet Corporation. Work on all of the ships is proceeding steadily. The company will have a total of nine launching ways. According to present indications, the entire new plant, costing \$4,000,000, will be in full operation by March 1.

During 1917 the plants launched ships totaling over 40,000 tons. This included six steel tankers of 5000 tons each and two steel cargo steamers of 6200 tons each, and early this month a third cargo steamer will be launched. Every steel tanker and cargo steamer completed at the plant after August 3, 1917, has been requisitioned by the Emergency Fleet Corporation.

It is probable that extensive additions to the launching ways facilities of the Bethlehem Steel Co. at Sparrows Point will be made within the near future to enable the handling of a greater volume of work. As it now is, the plant has contracts for but 12 vessels, but it is understood that the Emergency Fleet Corporation will shortly give a contract for at least 40 steel ships to the plant. There are now seven launching ways, with room for at least eight more of the same size. As at the Baltimore Dry Docks & Ship Building Co. plant, work is proceeding on all the ships under contract in the shops, and the seven ways have ships on them. The largest steel ship ever built in a Baltimore yard will be turned out in 1918 at this plant, and will be of 17,000 tons deadweight. A drydock to take care of vessels as high as 20,000 tons will be completed, and improvements



PROGRESS PICTURE OF NEW ADDITIONAL STEEL SHIPBUILDING PLANT, BALTIMORE DRY DOCKS & SHIPBUILDING CO., BALTIMORE, MD.

to the launching berths will permit building of vessels of 650 feet in length.

Last year the plant launched seven ships, with a total deadweight tonnage of 71,000. This was the largest tonnage ever turned out at the plant, but it is believed that it can be more than doubled in 1918 and that 150,000 tons will leave the ways. Four of the ships under construction will be used in carrying ore for the Bethlehem company. The remaining ships are cargo carriers and have been requisitioned by the Emergency Fleet Corporation. Thousands of additional men will be given employment at the plant during this year, and

cluded the following: Two barges 206 feet long, 23 feet wide and 13 feet deep, of 1000 tons each; three pile-drivers, 70 feet long, 24 feet wide and 5 feet deep, of 300 tons each; one water tank, 80 feet by 24 feet by 7 feet, 200 tons; 25 lighters, totaling 9100 tons. The total output was 11,900 tons. All the construction was of wood.

Thus far contracts have been received for work valued at \$165,000 for 1918. It includes eight coal lighters for the Government, 500 tons each; two barges for Eastern Transportation Co., 1000 tons each; two lighters for J. F. Thompson Company, 350 tons each; one

ests of Minneapolis will also engage in wooden shipbuilding in this section. A tract of nearly 100 acres, with large waterfront, owned by Baltimore city and adjacent to the tract of the Riter-Conley Manufacturing Co. at Fairfield has been secured. Tracks of the Baltimore & Ohio Railroad Co. reach the tract. The Eastern distributing point of the lumber company will be located there, and all lumber sold in the East will be handled there. It is said that the company will use a large portion of the tract for a wooden shipbuilding plant.

Officials of the Riter-Conley Manufacturing Co. are confident of producing a record tonnage this year at the plant acquired last year from the Ellicott Machine Corporation of Baltimore. Shortly after the first of the year the new machine shop will be completed. To enable the plant to build ships at record rate the patterns for plates and other materials are being laid out in the mold loft of the Fairfield plant and then shipped to other plants controlled by the Riter-Conley Company of Pittsburgh, where the products are finished and then shipped to the Fairfield plant to be fabricated. Thus far the plant has worked well, and big results are looked for this year. Negotiations are now under way for a number of additional contracts, and it is believed that more ways will be added. Two ways are already in use and two new ways providing for vessels up to 350 feet in length have been completed and keels will be laid shortly. Additional land has been secured west of the present tract, and there is still room for two additional ways on the present waterfront. One steel oil barge, Monongahela, 2870 tons, has been launched for the Gulf Refining Co. of Port Arthur, Tex., and a sister ship, Ohio, will leave the ways within a month. They are the first two vessels to be completed at the plant. Contracts for two six-mast auxiliary schooners have been awarded the company by the Aluminum Ore Company of America, and this contract may be enlarged. Work on the bulkheads, plates and keels is being rushed. Each will have six all-steel masts, in addition to engines, and be of 3040 tons deadweight each.

The company now has a force of skilled workmen, which is to be added to at intervals throughout the year until the plant is operating at maximum output. The new men will be trained under the direction of the present force.

The new plant of the Henry Smith & Sons Company on Curtis Creek, work on which began last July, is practically complete, and on the four launching ways keels have already been placed. It is the only plant in the Curtis Creek section to receive a contract from the Emergency Fleet Corporation, having a contract for eight wood vessels of the Ferris type of 3500 tons each. Several hundred men are now at work, and more will be employed when conditions warrant. Thus far the plant has been greatly handicapped because of lack of wood for keel blocks and frames, but conditions are improving and work is being speeded up. The construction of the plant and building of vessels will involve an expenditure of upwards of \$3,000,000. All materials are now received by car float, and a standard-gauge line has



H. E. CROOK COMPANY'S SHIPBUILDING PLANT, PATAPSCO RIVER, BALTIMORE, MD.

the Government is planning to aid by erecting houses for the workmen on ground provided by the company. Baltimore is about nine miles from the plant, and the problem of transporting the men to and from work is very difficult; hence the necessity of locating the homes of workmen near the plant. It is believed that the output can be increased by at least 50 per cent. if enough skilled men can be secured. Investigation has shown that the men can be had, but that living conditions must be made right for them.

#### Coastwise Shipbuilding Co.

With extensive improvements to its plant, completed during 1917, the Coastwise Shipbuilding Co. at Locust Point is in excellent position to carry out its 1918 program. More men are to be taken on to enable speeding up on contracts. There are six ways at the plant, four for ships of 2000 tons and two for schooners of 3000 tons. All six berths are now occupied and will remain so throughout the year, and at least eight ships, with a total tonnage of 15,000, will be completed. Additional work, however, can be handled, it is believed. During 1917 the plant launched five barges and schooners, all of wood, with a deadweight tonnage of 8250, being of 1650 tons each. The work on these vessels began in April, 1917. Of the ships now on the ways, several are nearing completion and one will leave the ways within a few weeks.

Now that a force of 200 men has been trained in wooden shipbuilding, new men can be trained quickly and with good results without any slackening of work. A total of 10 boats is being built for the Pennsylvania & Reading Transportation Line, and five have already been delivered. They are intended for use either as tow barges or sail barges, being equipped with hoisting machinery alone.

#### Maryland Shipbuilding Co.

The new plant of the Maryland Shipbuilding Co. at Sollers, work on which commenced only last June, is about complete. It consists of all the essentials of a modern wooden shipbuilding plant, and all machinery is operated by electricity. It has a contract for six wooden 3500-ton vessels of the Ferris type for the Emergency Fleet Corporation. Four launching ways have been completed, but keels have been laid on only two. The plant has been delayed considerably because of lack of wood for construction of the boats, otherwise work would have proceeded more rapidly. If conditions are righted and building materials arrive as they should the working force will be increased up to about 750 men.

#### Charles L. Rohde & Sons Company.

At the plant of Charles L. Rohde & Sons Company, at Canton, about 150 men are now employed and the plant is operating at full capacity. During 1917 the work turned out had a value of about \$135,000, and in-

tug for Eastern Transportation Co., 500 tons; one lighter for Hudson Transportation Co., 400 tons. The total for 1918 thus far is 7600 tons, but a much larger amount of work will be completed at the plant.

#### Curtis Bay Plants Active.

In the Curtis Bay section two plants are turning out wooden ships and one is building steel ships, and plans are under way for location of three additional yards, two to build steel ships and one wooden. The established plants are those of the Henry Smith & Sons Company on Curtis Creek, and Arundel Shipbuilding Co. at Fairfield, on the Patapsco River, building wooden ships, and the Riter-Conley Manufacturing Co. at Fairfield building steel ships.

The Chesapeake Shipbuilding Co. recently organized, and has a local representative at 8 E. Lexington street, Baltimore. The organizers are for the most part with Western capitalists mainly interested, originally intended to build Cunard liners, but since the Government has taken over all work the new company is endeavoring to land Government contracts for steel ships. It has purchased a tract of 73 acres on the south shore of Cabin Branch Creek and the west shore of Curtis Creek.

The Mann Shipbuilding Co. will also commence building steel ships when plants are completed. A tract on Curtis Creek has been secured from the South Baltimore Harbor & Improvement Co. W. B. Mann of the Mann Yacht Building Co. of Ferry Bar, Baltimore, is directing the work of the new company.

It is understood that the Weyerhaeuser lumber inter-



WOODEN VESSELS UNDER CONSTRUCTION BY COASTWISE SHIPBUILDING CO., BALTIMORE, MD.

been laid through the grounds. A spur is to be run to the plant from the Baltimore & Ohio Railroad's Curtis Bay extension. When in full operation the new plant will employ about 400 men.

Good progress is being made on the wooden barges under construction at the Arundel Shipbuilding Co.'s plant at Fairfield, although started only a few months ago. The plant was formerly operated by the Arundel Sand & Gravel Co. of Baltimore, and the workmen were skilled in wooden shipbuilding. During the past year the plant has done considerable repair work, construction of scows and lighters, and has built the largest sand and gravel dredge in the country. During 1918 the plant will build wooden barges and larger wooden ships, an addition costing upwards of \$100,000 having been completed recently. Already a contract for six barges of about 2000 tons each has been given the plant, and two of these are now on the ways.

#### \$10,000,000 Corporation to Build Ships at Alexandria.

At Alexandria, Va., the American Shipbuilding Co. will establish an extensive plant for constructing steel vessels, and a 30-acre site with frontage on the Potomac River has been purchased. This company's organization with \$10,000,000 capital was announced recently, including reference to a Government contract for building 12 steel vessels to cost \$20,000,000. The first keel is to be laid within three months, and the shipyard details are now being determined. It is understood that this company is a subsidiary of the United States Steamship Co. of New York. The yards will employ 3500 men and it is stated that they will be furnished living accommodations on a large steamship until homes can be built and purchased for them on land near the shipyard site. Charles W. Morse of New York, the well-known steamship operator, is one of the directors of this company, and his son, H. F. Morse, also of New York, is the treasurer. The other officers are: President, Colon H. Livingston, president of the Washington & Old Dominion Railway and the Chesapeake & Potomac Steamboat Co., and vice-president of the American National Bank, Washington, D. C.; vice-president, B. W. Morse; vice-president and secretary, B. G. Higley of New York. Charles W. Morse, William Guggenheim and G. W. Loft, each of New York; Robert Jackson of Concord, N. H.; Davis Elkins of Washington, and R. Lancaster Williams of Baltimore, with the officers named, are the new company's directors.

#### York River Plant Starts With Important Initial Contract.

Eight wooden hulls costing \$3,000,000, each ship to be of 3500 tonnage, will be constructed at Port Richmond, Va., by the York River Shipbuilding Corporation. This company has Government contract for building these hulls, which will be of the Ferris standard yellow-pine type. It was organized several months ago with a capitalization of \$1,000,000 by Richmond capitalists, Warner Moore of that city being president. In referring to his company's facilities, Ripley Bowman, purchasing agent, West Point, Va., recently wrote to the MANUFACTURERS RECORD describing the plant. The equipment of the yard includes four shipways, arranged for side launching; large mill building, located so that timbers can travel from the cars directly through the mill and onto the shipways; complete equipment of shipbuilding tools, with large band saw, 30-inch dimension planer, planing and beveling machine, large molder and smaller tools. All machines are direct connected to individual electric motors, the electricity for which is supplied by a 350-kilowatt steam-generating unit in the yard. This power-house also includes a compressor with a capacity of 550 cubic feet per minute. A sawmill is operating in the yard to enable such rough construction timber as is needed to be manufactured on the premises. The company has constructed a considerable number of houses for its employees, and operates a large cantonment dormitory and mess hall for their accommodation. It also conducts a commissary in order to supply the families occupying these dwellings.

#### \$100,000,000 Worth of Government Work at Newport News Plant—One of the World's Greatest Shipyards.

The Newport News Shipbuilding & Drydock Co., which launched nine merchant ships and the largest battleship in the world in the 12 months ending in December, now has under contract approximately \$100,000,000 worth of Government work. This is said to be the greatest amount of work ever held at one time by any yard in the world.

The Newport News yard has launched an average of one ship a month for the past 24 months. This is claimed to be a world's record.

The first ship completed in 1917 by the yard was the United States battleship Mississippi. This boat will go into commission soon. She is the largest fighting craft afloat, and has a deadweight displacement of 32,000 tons.

The F. O. Barstow was completed in January. She has a displacement of 14,900 tons. The next ship launched was the Felix Taussig. She was launched in January, and has a displacement of 9000 tons.

The Mundelta, 7500 tons displacement, was launched in March; the O. B. Jennings, 14,900 tons, in August; the Torres, 7600 tons, in May; the El Almirante, 6200 tons, in June; the El Capitan, 6200 tons, in August; the Munindies, 7500 tons, in October, and the Munaries, 7500 tons, in November.

Despite the fact that the Newport News yard has been specializing in Government work for the past year or so, the merchant ships named above have not been neglected and the majority of them already have been placed in commission. While built for coastwise trade, all nine of the steamers are large enough and staunch enough to be placed in the transatlantic trade. The yard now is building several other merchant ships, but is taking no more merchant contracts, a policy to which it has adhered for the past 20 months.

Officials of the yard stated long before the United States entered the war that the huge plant was at the disposal of the Government. Since the United States entered the war the concern has become virtually a navy-yard, and to aid the Government in the prosecution of the war more than \$6,000,000 is being spent in improvements.

These improvements include a large general office building, two new shipways, to be the largest in the world, several additional shops, new piers, new cranes, new warehouses and other facilities which will almost double the output capacity of the concern. These improvements are well under way, and will be rushed to completion.

The yard is employing more than 8000 men, and is working night and day shifts in many departments. The number of workmen will be increased to 12,000 and three shifts worked, if housing facilities can be found for the workmen, according to recent statements of Homer L. Ferguson, president and general manager of the concern.

There are no houses to be had in Newport News at any price, and the yard now is completing 50 houses for its workmen. These houses will be sold to the workmen on a rental basis. In addition to this, the Navy Department has built barracks near the yard for the accommodation of nearly 300 unmarried men. Other barracks will be started in the near future, it is understood.

The yard has yet taken no contracts from the Shipping Board, but it is reliably reported that it will do so during the year. If the yard decides to build merchant ships for the Shipping Board, the Shipping Board is expected to build barracks near the yard for additional workmen.

The yard at this time is devoting practically all its energies to the construction of torpedo-boat destroyers, and has contracts for 31 such craft. Several of them are under construction, and more will be started the first of the year. The yard also has contracts for the construction of two battle-cruisers, to be the largest in the world.

President Ferguson says the wages paid by the yard are similar to those paid in Atlantic coast navy-yards, if not higher in some cases. The employees recently were given a general increase in pay which averaged 10 per cent.

In addition to the construction program given above, the yard has repaired a total of 450 vessels during the past 12 months. Many of them were badly damaged, and had to be practically rebuilt.

Owners of the yard recently purchased land to the north and south of the present limits of the plant,

which will make it possible to more than double the size of the plant. New shipways and shops are being built on the land north of the plant, and the land to the south will be used for the erection of houses for the workmen, it is reported from official sources.

The yard has loaned the use of its buildings and most skilled workmen to teach a large number of shipbuilding teachers, the work being done under the direction of the United States Shipping Board. These teachers will be sent to all the larger plants in the country. The men, all experts in some line, are given a thorough course in theoretical and practical shipbuilding. Experts from some of the foremost industrial schools in the country are training the men in the theoretical end of the work, and the yard's most expert workmen are teaching the practical end. The students start a piece of work and follow it from the time the first mark is put on it until it is in place on the ship.

With the Newport News plant operating at capacity and being enlarged and a small plant in Hampton building submarine chasers and wooden ships for the Government, Hampton Roads bids fair to become the Clyde of America in a very few years. A large plant is to be built in Portsmouth in the near future, and two plants are negotiating for sites in Norfolk. The Hampton plant, known as the Newcombe Company, is capitalized at approximately \$50,000. The plant is small and the equipment limited, but the concern already has launched one submarine chaser and is building several others. The owner built it to construct a patent life-boat, but placed it at the disposal of the Government when the United States entered the war. He has a large force of workmen, and is making preparations to enlarge the plant in the near future.

The Hampton Roads Drydock Corporation has purchased 150 acres of land in Portsmouth, or West Norfolk, and will immediately begin the construction of a large shipbuilding plant. The company is chartered under the laws of Ohio, with a capital of \$1,000,000. Officers are: G. W. Flaga, president; John R. Carey, vice-president; J. F. Sweeney, treasurer; R. B. Wallace, general manager; I. S. Fein, secretary; Harry Andrews, superintendent.

It is estimated that the proposed plant will cost \$800,000. Preparations already are being made to begin the construction, and the work will be started in earnest the first of the year.

Thousands of workmen will be employed, officials of the company say. It also is said that the concern already has enough contracts in sight to keep it busy for three years after completion.

The plant will be constructed on the unit system, permitting enlargement to any practical extent required by future business. Side launching ways will be used. They will be the second of their kind to be placed in operation on the Atlantic coast.

New York capitalists are negotiating for the purchase of land near Norfolk for the erection of a plant for the construction of concrete ships. How far these negotiations have gone is not known at this time, but it recently was reported that the construction of the plant would be begun the first of the year.

#### Wilmington, N. C., Active in Wooden Ship Construction.

Wilmington, N. C., January 3—[Special.]—The first of fleet of wooden vessels to be built in Wilmington this year was the schooner Hoppauge, which was launched on October 10, and which will soon be ready for service. A sister ship of the same size and capacity was launched from the same yards in December, while two others are under construction and the keels of at least four more are to be laid soon.

These two schooners are being built here by the Naull Shipbuilding Co., a subsidiary corporation to R. Lawrence Smith, Inc., of New York, which leased the plant of the Wilmington Iron Works for the purpose of building vessels now under construction, but which has recently acquired the site of a former lumber plant on the Northeast Cape Fear River, above the city, where several ships of approximately the same size will be started early this year.

The Hoppauge and her sister ship have a gross register of 1500 tons, a displacement of 2500 tons and a dead-weight capacity of about 2500 tons. Length over all is 236 feet, length on keel is 220 feet, beam is 40 feet and depth 21 feet. The vessels are built of longleaf pine, practically all of which is secured in this

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Cushman & McKown, a Northern concern, began operations in Wilmington in July, and are now building here a four-masted schooner of 1500 tons dead-weight capacity, which it is hoped to have ready for launching some time in March. The vessel will be double deck and equipped with all modern appliances, inclusive of hoisting engine on deck for working cargo aside from engine for operating anchors, pumps, etc.

In addition to this vessel, this shipbuilding firm is constructing for other interests a 500-ton harbor lighter which is expected to be ready for delivery within the next five weeks.

At the present time Cushman & McKown state that they have other business for undisclosed interests, but are not now in position to make any other statement about this.

The Naull Shipbuilding Co., of which Mr. A. P. Naull is general manager, several months ago leased the plant of the Camp Manufacturing Co., a large lumber concern, and have installed machinery for the building of vessels, and it is understood that the keels of four schooners are to be laid shortly. A large force of hands is now employed at the yards getting timbers ready for building wooden ships.

The plant of the Wilmington Iron Works, now under lease by the Naull interests, is equipped for building schooners up to 300 feet in length. As soon as the two ships now being constructed are out of the way, it is hoped to start other ships.

#### Large Plans for Shipbuilding at Southport.

Shipyards to be built at Southport, N. C., will be equipped to construct ships according to the Garland system of monolithic vessels. This plant is proposed by William H. Garland of Wilmington, N. C., who states that there is no corporation connected with the enterprise and that ultimately steel works are also to be built. The plant site is on the natural deep-water harbor available at Southport, on the Carolina coast. Outlining plans for this shipyard, recent statements are to the effect that more than 600 acres of land, fronting on two miles on the Cape Fear River, have been purchased for \$125,000 for the plant site. This tract extends up the river to Price's Creek, which will be dredged to correspond to the depth of the sound and 400 feet in width, making a splendid land-locked basin in which to float ships as they are built. Two experienced superintendents are under contract, and one will take charge of building 60 monolithic vessels, while the other will manage the building of 30 wooden vessels.

Contracts have been let for five large cement build-

ings, a 100-room hotel, bank building, 100 cottages for skilled laborers and for cement docks and storehouses. Bids are now being received for 30,000 tons of cement and 50,000,000 feet of lumber required for the construction of the plant.

#### Charleston to Complete \$20,000,000 Worth of Ships for Government Within Ten Months.

Charleston, S. C., January 3—[Special.]—Charleston has a contract to build sixteen 7500-ton fabricated steel ships for the Government, at a cost of \$20,000,000, within the next 10 months. This is the biggest thing in the shipbuilding line that appears on the South Carolina seaport's horizon at this time. The Southern Shipbuilding Corporation, operating under the Whittlesey patents, is the concern which has obtained this contract from the Government, and its engineers have already begun work at Charleston on the site for the plant. Inasmuch as the Southern Shipbuilding Corporation is said to have a contract of which time is the essence, with penalties for delay, it is believed locally that the work of actual construction will be commenced just as soon as the company finds it possible.

The largest private plant in Charleston at this time is that of the Valk & Murdock Company, which is already equipped to build and repair vessels up to 1500 tons, but which now has under construction a floating drydock which will be the largest commercial drydock on the South Atlantic coast and will accommodate nearly anything in the coastwise trade. Satisfactory progress is being made on this drydock at the company's yards on Cooper River. The plans include constructing basin 450x100 feet in overall dimensions, capable of handling vessels of 7500 tons or more. The dock structure will be of wood and steel, constructed in sections to permit making the dock shorter or longer. The dock sides will measure 43 feet to permit the entrance of vessels drawing 22 feet of water. Vessels 500 feet long with 80-foot beam will be accommodated. In addition to its other activities, the Valk & Murdock Company has under construction a large order of ship's boilers.

Shipbuilding has been in progress steadily at the Charleston Navy-yard for a considerable time, with important results, but, needless to say, no details of this work can be given at this time.

Charleston is looking forward very eagerly to the coming of the Southern Shipbuilding Corporation, which announced that it will employ at least 3000 men in the beginning and probably as high as 7000 later on, and that it will establish itself on a permanent basis for work after the war as well as now. The Southern Shipbuilding Corporation expects to get its fabricated parts from the Birmingham district.

**\$12,600,000 Worth of Ships Represents Savannah's Activities Since Beginning, in July, 1916.**

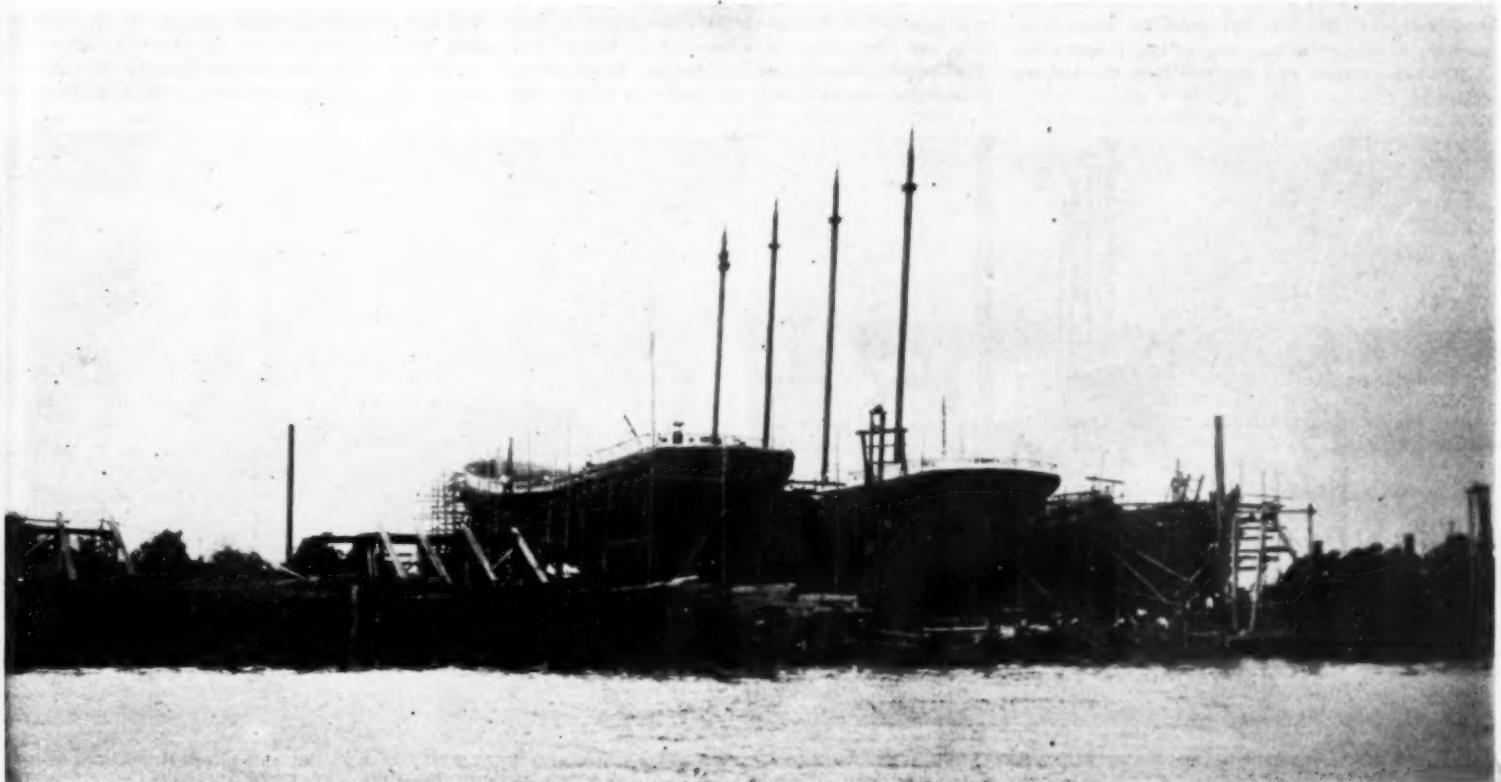
By WILLIAM GARRARD, JR., Savannah, Ga.

Situated on 32 feet depth of water, 18 miles from the oceans, on a river furnishing miles of attractive sites for shipbuilding plants, Savannah, Ga., where shipbuilding was unknown prior to July, 1916, today possesses three large plants which have built or are building 30 vessels, worth over \$12,600,000, and indications are that additional large contracts will be awarded Savannah firms within the near future.

Three vessels have been completed—the Chaska, 2000 tons deadweight, launched by the Savannah Engineering & Construction Co. on August 21, 1917; the Sally Wren, 1350 tons deadweight, launched by the Georgia Shipbuilding Co. on September 3, 1917; the Sherewog, 2000 tons deadweight, launched by the Savannah Engineering & Construction Co. on November 22, 1917. The first two of the above vessels are schooners. The third is an auxiliary schooner fitted up with engines. All three of them are now doing their share in ocean commerce to combat the submarine menace.

Within the next 30 days two additional vessels are to be launched, one of 2000 tons by the Savannah Engineering & Construction Co. and one of 1350 tons by the Georgia Shipbuilding Co. This will make five vessels completed and launched. In addition to these, there are three others on the ways of the Savannah Engineering & Construction Co. and two others on the ways of the Georgia Shipbuilding Co., making 10 vessels either built or building by these companies. The six 2000-ton vessels are worth \$300,000 each, the four 1500-ton ones \$200,000 each, making \$2,600,000 worth of ships from these two companies alone. Both of these companies are Savannah concerns, organized by Savannah men with local capital. The third shipbuilding company is the Terry Shipbuilding Corporation. This concern owns a site fronting more than half a mile on the Savannah River, about eight miles above the city. This company has contracts for 20 composite steel and wood vessels, valued at \$500,000 each. The delivery of the first of these vessels is scheduled for February 1; the other 19 are scheduled to be delivered within 10 months from this date. The deadweight capacity of these vessels (all of which will be steamers) is to be 3500 tons each. They are to be 280 feet long, 45 feet beam and will draw about 20 feet when loaded. The framework is of steel construction, with hull, decks and superstructure of wood.

Mr. Edward Terry of New York city, member of Terry & Tench, large contracting concern, is president of the Terry Shipbuilding Corporation, and has moved



THREE WOODEN SHIPS UNDER CONSTRUCTION BY THE SAVANNAH ENGINEERING & CONSTRUCTION CO., SAVANNAH, GA.

to Savannah, making this city his home, so that he can actively superintend his big enterprise here. The Terry Shipbuilding Corporation employs approximately 2000 workmen, and around its big plant above the city has sprung up a good size village of workmen's homes.

The Savannah Engineering & Construction Co., the oldest shipbuilding company in Savannah, began building ships in July, 1916. Its capital stock is \$50,000. Its executives are Wayne Cunningham, president; W. S. Tutwiler, vice-president; A. O. Hancock, secretary and treasurer, and E. G. Copeland, superintendent. All of these are Savannah men. Three hundred and fifty men are employed at this plant, which is located just west of the city limits on the Savannah River. This company has ways for three vessels, and these ways are kept filled; as fast as one ship is launched another is started immediately.

The Georgia Shipbuilding Co. is capitalized at \$50,000. Its officers, all of whom are Savannah men, are M. A. O'Byrne, president; Joseph Hull, vice-president; Charles G. Wilkinson, general manager; J. W. Heffernan, secretary and treasurer; Frank W. Spencer, assistant secretary and treasurer. This plant is located directly across from the city on Hutchinson Island. It has ways for two vessels, and these ways are always in use, a new ship being started immediately after a launching. This plant employs 180 men.

There is a fourth shipbuilding company in Savannah, but this company has not to date actually started work. This is the National Shipbuilding & Drydock Co., incorporated in Savannah, possessing a shipyard with 8000 feet frontage on the Savannah River. The capitalization of this company is \$300,000. Its officers are R. S. Salas, president; H. Hodgson, secretary and treasurer; T. H. Meader, superintendent. It is said upon good authority that additional large contracts will soon be taken over by some of the Savannah firms named above, but details of these are not yet in shape to be given out.

The Savannah Board of Trade has been in correspondence with several shipbuilding companies which indicate they intend to start operations in Savannah.

Savannah's advantages as a railroad center served by seven railroads, and Savannah's location in close proximity to the great forests of Southern pine, together with the abundance of skilled labor as compared to many other shipbuilding points, make this city very attractive to shipbuilding plants and a profitable place at which to build ships.

In addition to natural resources in Southern pine close to Savannah, adjacent to this city are found heavy growths of giant live oaks. The curved trunks and branches of these large trees are used by the shipbuilding companies to make knees for their vessels. Several of the companies have bought concessions for cutting oaks on many islands near Savannah.

In addition to the abundance of wood, Savannah is situated in such close proximity to the iron mines and steel works of Alabama that steel for shipbuilding purposes is shipped to this city at low freight rates. Coal is also obtained at a low rate from the Alabama fields.

Indications are that concrete ships will soon be built in Savannah. In addition to abundant local supplies of excellent and low-priced sand, the water rates from Philadelphia and other points from which cement is shipped in quantities are so cheap that this main ingredient of concrete can be bought in Savannah at very low prices.

Now that there is an abundance of work to offer skilled laborers, such men are coming to Savannah from all parts of the country. Savannah's mild climate contributes much to this influx of desirable labor. For instance, during the last two months the Savannah Board of Trade has received 100 letters from skilled mechanics, carpenters and others living in the Middle West, New England States and elsewhere. These letters almost invariably state that the writer is anxious to get away from the rigors of the Northern winters and therefore desires to move to Savannah. The Savannah Board of Trade has followed up these letters with inquiries at the shipbuilding plants and other new industries, and has found that a large majority of the persons writing that they were coming to Savannah have actually come here and are now making their homes and their livelihood in this city.

#### Five Newly Created Shipyards Rapidly Making Brunswick a Great Shipbuilding Center.

By ALBERT M. SMITH, Secretary Brunswick Board of Trade.

A little more than a year and a half ago the keel for the first wooden schooner, the Glynn, was laid in Brunswick by Capt. John H. Leo, who organized the Brunswick Shipbuilding Co., the first company organized in the South to build ocean-going ships in years, probably the first since the Civil War. The impetus given by the demonstration of the economy with which vessels could be built at Brunswick, in which the people of Brunswick had such strong faith that they invested their money in the demonstration, has resulted in the establishment since that time of five shipbuilding plants, three of which certainly will be permanent. In addition, not less than half a dozen companies are negotiating for sites at Brunswick.

The second plant established was the Brunswick Marine Construction Corporation, which was organized, mainly with New York capital, in May, 1916. By various purchases this company has now 2000 feet of frontage on East River, six launchways in use and a large foundry, machine shop and all other equipment needed for building steel vessels of large size. Additional launchways are to be added to the plant, it is understood, to permit construction of a number of steel ships. The first vessel, the four-mast schooner *Rassapeege*, was launched in February, 1917; the second, a sister ship, the *Nissequogue*, was launched in March, 1917. Both vessels were equipped with two semi-Diesel internal combustion engines of large size and twin screws. The

four-mast schooner *William Taylor* was launched from this plant on August 9. All of these vessels took cargoes from Brunswick for the first voyage. Two five-mast schooners are now under construction in this plant, one of them being nearly ready for launching. A steel steamship of 4500 tons is under construction, and since full shop equipment for fabricating steel has been installed rapid progress is being made on this vessel. In addition to equipment for building and repairing steel vessels, this yard has extensive shop buildings for construction of wooden vessels, for which the plant originally was established. Soon after the plant was in operation plans were made for steel shipbuilding, and the foundry, machine shops, marine railway and engineering works of the Parker-Hensel Engineering Co., adjoining the shipyard, were purchased. It is now stated that the company will build only steel vessels when present contracts are completed.

One of the earlier plants at Brunswick, the Carpenter-Watkins Shipbuilding Co., was established just a year ago. So far the plant has built only wooden barges of large tonnage, but two additional ways have been built recently, and construction of steel vessels will begin, it is understood, very soon. The plant has six launchways and a yard with equipment for wooden construction. Some twenty-odd barges have been built in this plant in the past 10 months for the M. & J. Tracy Transportation Co., New York, and the Erie Railroad.

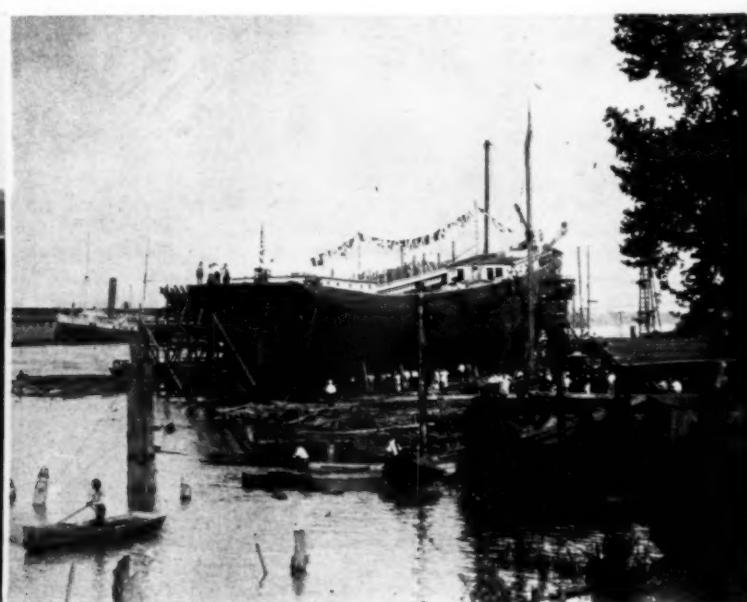
At the plant of the American Shipbuilding Company, organized locally with Brunswick and New York capital, eight launchways have been built, and rapid progress has been made on a contract for 11 wooden freight steamers of 3500 tons each for the Government. The plant is completely equipped for building wooden vessels. A building has been completed and the machinery installed for fabricating steel for building steel steamships. It is understood that the plant will build nothing but steel vessels after completion of the first Government contract for wooden steamers.

A recent yard is that established by the United States Maritime Corporation of New York. Though the first work began on the site August 17, remarkable progress has been made. Four ways of the initial six have been completed, the first two of six 3500-ton wooden steamers under contract for the Government are under construction, and five of the seven plant buildings have been completed. A large graving dock will be built and a floating drydock of large capacity will also be constructed, so that the company will be equipped to dock and repair the largest steamships. It is understood that present plans call for the building of several more launchways and the construction at one time of 10 steel steamers of 9000 tons each under contract.

This plant was designed from the beginning as a permanent plant, as was that of the American Shipbuilding Co., and the plant of the Brunswick Marine Construction Corporation has been expanded and converted so as to stay in the shipbuilding business after the war ends. This company has started work building 125



LAUNCHING OF THE "CHASKA," THE FIRST SAVANNAH-BUILT VESSEL.



WOODEN SCHOONER "SALLY WREN" JUST BEFORE LAUNCHING BY GEORGIA SHIPBUILDING CO., SAVANNAH, GA.

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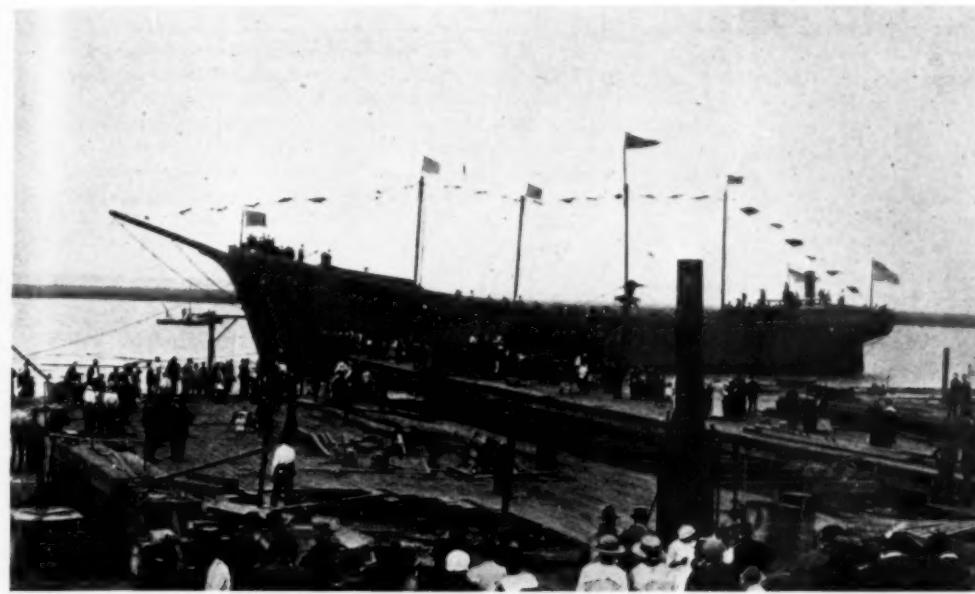
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houses for employees and a large apartment-house for officials, the latter in the city.

The fifth shipyard has just been completed by Capt. John H. Leo, who has organized the Brunswick Shipbuilding Co., a new corporation, which has taken the name of the first shipbuilding company established in Brunswick, which built the schooner Glynn, the charter of the first company having been surrendered when the Glynn was completed and sold and the demonstration made, by the dividend of about 35 per cent. to the stockholders, that Brunswick is admirably located for shipbuilding, which was one of the objects of the promoter



AUXILIARY POWER SCHOONER "NISSEQUOGUE," BUILT BY BRUNSWICK MARINE CONSTRUCTION CORPORATION, BRUNSWICK, GA.

of the first shipyard and his subscribers. The new company has a site and well-equipped yard on Terry's Creek, on the east side of the city, and has under construction one schooner of about 700 tons, though the organization of the company was perfected as late as December 3.

With lumber for the construction of wooden vessels cheap and plentiful at Brunswick; with low freight rates on steel from the Pittsburgh and Birmingham districts, two direct short lines of railroad running from Brunswick to the Birmingham district; with climate that permits all-year work in the open air, with accompanying economies in living for workmen in fuel, housing and clothing, as well as food supply from gardens during the entire year; with death rate among the lowest in the United States; with excellent labor conditions, and in view of the large number of steel vessels under construction and contract for the coming year, Brunswick's future as a great center for shipbuilding seems to be definitely assured.

### Shipbuilding Plant and Drydock Proposed for St. Marys.

St. Marys, Ga., January 3—[Special.]—On a 50-acre tract on the North River at St. Marys the Alliance Shipbuilding and Navigation Corporation is locating a plant with modern machinery for the purpose of building at once a number of four-masted schooners of from 1600 to 2000 tons capacity. The ships that the corporation will build will be used as soon as built in the carrying trade of the coast, and thus fit into the transportation plans of the Emergency Fleet Corporation, United States

shipways for building and repairing composite ships up to 8000 tons capacity. Future plans are to provide drydock, shear and dock legs for drydock, machine shop, fabricating shop and woodworking shop, with complete facilities for the construction of steel vessels.

### More Than \$164,000,000 Worth of Ships Under Contract and Being Built in Four Southeastern States.

Jacksonville, Fla., January 2—[Special.]—The public generally hardly realizes the magnitude of the shipbuilding industry in the South, as it is yet in its infancy, because of the fact that it takes usually from 60 to 90 days to start on the keel of even a small wooden vessel from the time the plans are made and the ways are started. In the Southeastern District, composed of the States of North Carolina, South Carolina, Georgia and Florida, shipbuilders hold Government contracts for over \$64,000,000 worth of various kinds of vessels, steel, composite and wooden. The value of the ships being built by individuals and private corporations will reach \$100,000,000, and all these ships will be afloat by this time next year. The number of ships, approximately, to be and now under construction in the Southeastern District under Government contract is 81. Twenty-six of these are under contract and construction in Jacksonville, in addition to a large number to be built by private parties.

The shipbuilding industry in the South, particularly Florida and Georgia, is only about six months old, although for many years small vessels have been built for coastwise purposes, yet today the ports of the South Atlantic are booming with industry, and the ways, several months in completion, are now holding the keels of future commerce carriers, wooden, steel and composite.

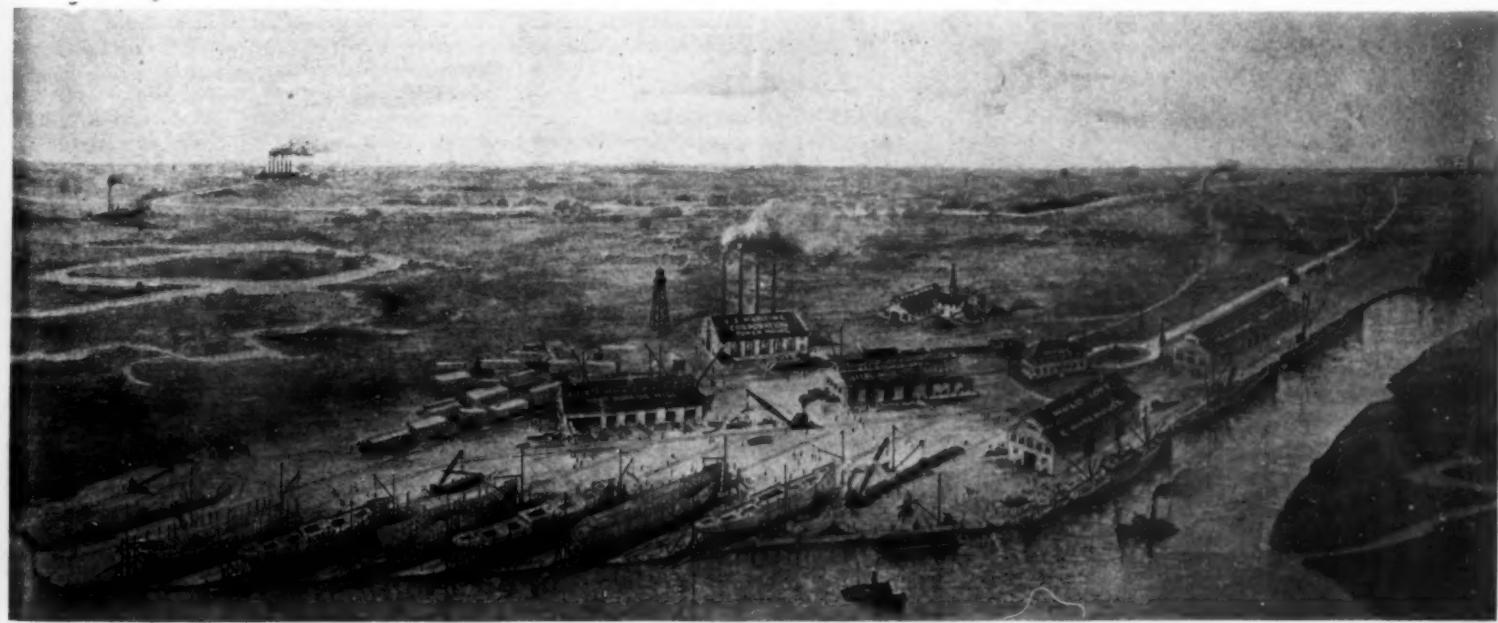
The Merrill-Stevens Company, recently recapitalized for \$500,000 paid-up capital, has contracts for 16 steel and composite ships, in addition to a number of individual contracts, and the keels of three of the steel ships are now laid. The site of the plant is directly opposite the city of Jacksonville, and covers 60 acres of land, with 1500 feet of water frontage, along which the ships will be built and launched sidewise.

The W. M. Tupper, the second steel ship to be launched by the Merrill-Stevens Company during December, entered the water on December 29. Following her trial test the W. M. Tupper will be turned over to her owners, the Gulf & Southern Steamship Co., and will be used in coastwise service. The vessel is 229 feet long, 38 feet beam, depth of hold 25 feet, displacement 1184 tons, and is equipped with semi-Diesel oil-burning engines.

The first steel vessel to be launched by the Merrill-Stevens Company during December was the Mohawk, built for the Gulf Refining Co. The company now has three 6000-ton steel ships under construction in their new yards and will begin to lay the keel for a fourth

### Fernandina Plant to Build Large Composite Ships.

Philadelphia capitalists are completing plans for the Fernandina Shipbuilding & Drydock Co., which they have organized with a capitalization of \$1,000,000 to build shipyards at Fernandina, Fla. J. J. Maxwell and John A. Ryan, who will be general superintendent of the enterprise, are among those interested. They have obtained a 30-acre site, including 1200 feet of deep-water front on the Amelia River, adjoining the Seaboard Air Line Railway. The immediate plans are to construct



GENERAL VIEW SHIPBUILDING PLANT UNITED STATES MARITIME CORPORATION, BRUNSWICK, GA.

some time in January. These ships will be used in the new American merchant marine.

The Government shipyard of the Hillyer-Sperring-Dunn company recently launched the wooden schooner "Lahocla" for the Eastern Transportation Co. of Baltimore, and is now completing two big barges for the same concern for the Cuba-New York molasses trade. As soon as these vessels are launched, active work on a much larger scale will start on wooden commerce carriers for the new American merchant marine.

The G. S. Baxter Shipyards Co., Inc., has already launched two large wooden schooners, each 225 feet long, 42 feet beam and 22 feet hold depth, for the

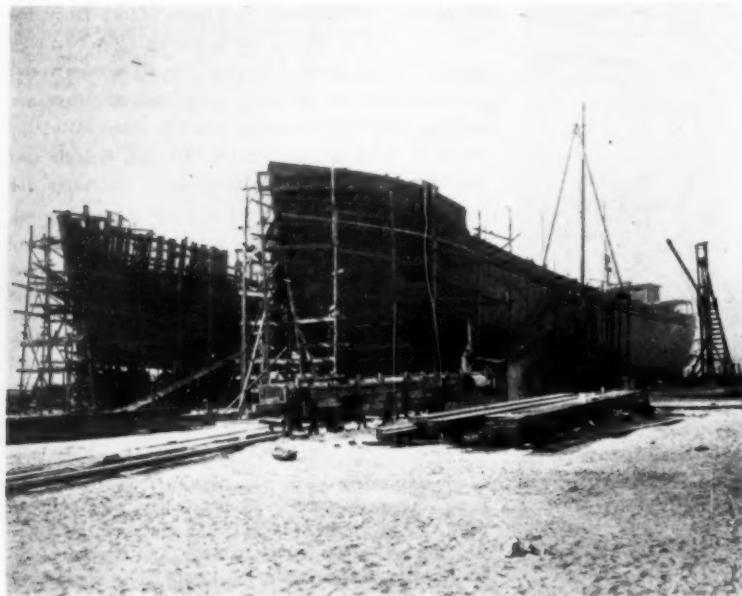
the Ward Line Steamship Co. in construction and operation, has been made district chief of steel ship construction in the eighth district, with headquarters in Jacksonville. Mr. Crossing succeeds W. C. McGowan, now district chief of wooden ship construction; however, their offices are adjoining, and the work in building ships for the American merchant marine will be rushed as never before.

In the opinion of shipbuilders at this port, this appointment of a steel ship construction district chief means that the United States Shipping Board and Emergency Fleet Corporation are contemplating increased activities in the eighth district.

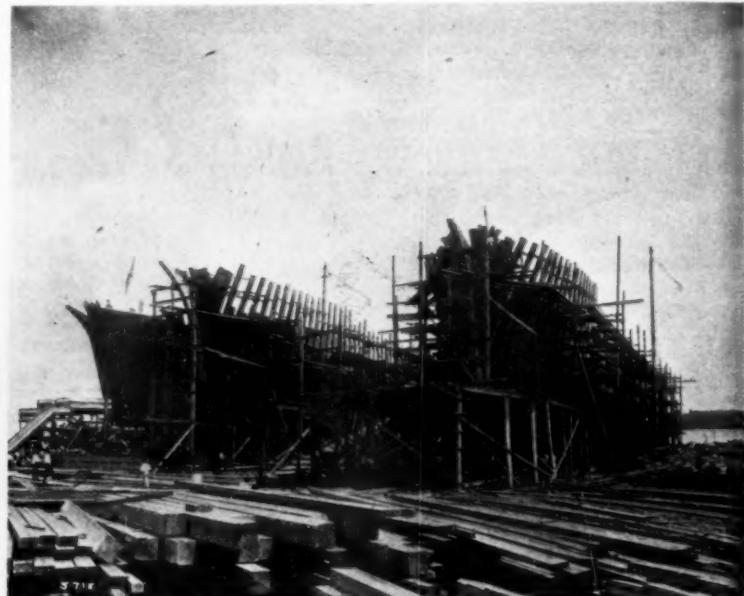
and War Wonder, Cunard Line, contract taken over by United States Shipping Board; 3500-ton ocean carriers; to be launched in spring and early summer, 1918; cost approximately \$1,250,000; length, 276 feet; beam, 42 feet; drawing 24 feet of water.

Tampa Dock Co.—Four wooden ships, standard type 3100 tons; to be launched spring and summer of 1918; contract giving until September 1-November 15; cost approximately \$1,200,000; length, 286 feet; beam, 46 feet; drawing 24 feet of water.

Oscar Daniels Company of New York—Ten steel freighters, 9500 tons; work to start early in 1918 and be completed in one year; cost approximately \$16,000,



HILLYER-SPERRING-DUNN COMPANY'S SHIPYARD, JACKSONVILLE, FLA.



G. S. BAXTER SHIPYARD, JACKSONVILLE, FLA.

Armour Fertilizer Co. of Jacksonville. One of these vessels was christened the Chas. II. McDowell and the other the De Witt Brown. The third ship of similar size is now being completed and will be launched some time in January.

The plant of J. M. Murdock is now getting down to active work, after some time being taken in getting the ways built, and the keel of the first wooden ship has recently been laid. The company will build four wooden vessels at once.

The Morey-Thomas Company, joining the Murdock yard, is also laying the keel for its first wooden ship, and will also build four vessels at the same time.

#### Growing Importance of Shipbuilding at Jacksonville.

Jacksonville, Fla., January 5—[Special.]—Samuel L. Crossing of Plainfield, N. J., for 23 years connected with

The growth of the United States Shipping Board offices in Jacksonville has been commensurate with the development of the shipbuilding at this port, the offices having grown from three small rooms several months ago to an entire floor of the Heard National Bank building, comprising 16 offices.

#### Tampa Ships Building and Under Contract Represent \$19,000,000.

Tampa, Fla., January 3—[Special.]—The shipbuilding activity in Tampa may be summed up as follows:

Tampa Shipbuilding & Engineering Co.—Completed, Poughkeepsie, 2000-ton river steamer, launched September, 1916; cost, approximately \$200,000; length, 215 feet; beam 48 feet; drawing 7½ feet of water.

Tampa Shipbuilding & Engineering Co.—War Work

600; length, 486 feet; beam, 56 feet; drawing 28 feet of water.

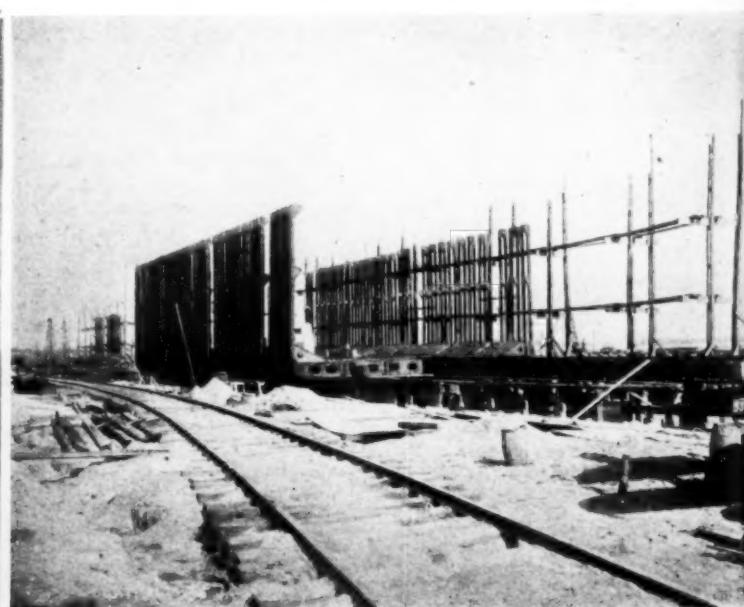
To launch the first wooden ship, built under contract with the Emergency Fleet Corporation, in W. C. McGowan's district, is the ambition to which the Tampa Dock Co. is bending its energies. No. 1 hull is shaping up rapidly, the sternpost being erected December 18 with work on No. 2 hull pressing along. The Tampa Dock Co. shipyard, with four of the 3100-ton wooden ships to build, involving an outlay of \$1,200,000, is at the head of the Ybor channel or estuary.

Less than a mile to the south, fronting on the turning-basin at the estuary's mouth, is the Tampa Shipbuilding & Engineering Co.'s plant, where steel freighters are under construction for the Government.

At the Tampa Shipbuilding & Engineering Co.'s plant the Oscar Daniels Company of New York is to build 10 steel ships of 9500-ton capacity, carrying out by far the biggest contract in the shipbuilding line that Tampa figures in. The Oscar Daniels Company leased yards



LAYING FIRST KEEL FOR WOODEN SHIPS, J. M. MURDOCK YARD, JACKSONVILLE, FLA.



STEEL SHIPS UNDER CONSTRUCTION MERRILL-STEVENS YARD, JACKSONVILLE, FLA.

n over by carriers; 918; cost beam, 42  
lard type of 1918; 15; cost beam, 46  
Ten steel 1918 and \$16,000-

and frontage on the estuary for the Tampa Shipbuilding & Engineering Co., the latter, however, carrying on its work on the War Work and the War Wonder, two steel ships of 3500 tons capacity which are now being erected.

Tampa's contribution to the emergency fleet when the work under way or under contract has been launched, will be 114,400 tons of shipping, of which 102,000 will be steel and 12,400 wooden ships. The new year, it is expected, will see the building slips ready for the first keel of a 9500-ton freighter to be laid down in this port, and after the War Wonder, which is now ready for its sheathing of steel, is launched during January, and the

Its shops and other buildings give it facility, according to District Engineer W. C. McGowan, for the construction of 12 steel ships at a time.

### Pensacola and Vicinity Show Notable Growth in Shipbuilding Activity.

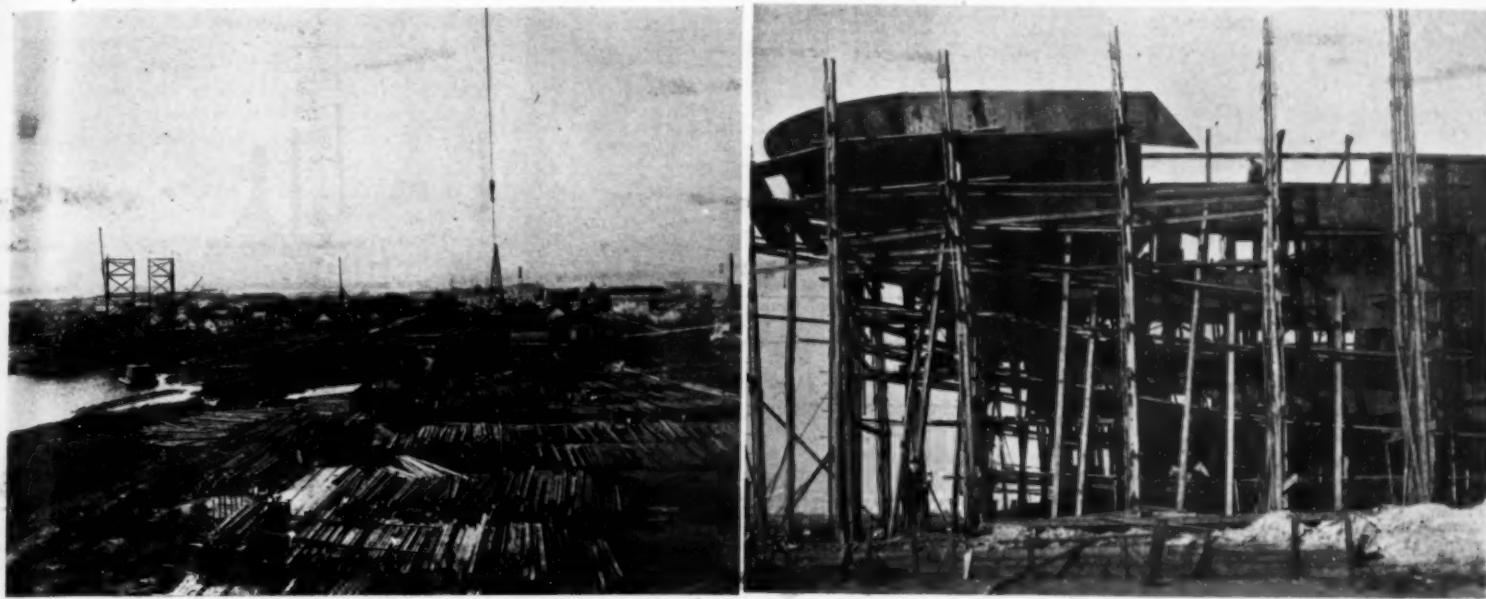
By DON McCLELLAN, Pensacola, Fla.

Numerous plants for building ships are in successful operation at Pensacola and in this section, and others

ber in abundance, and several vessels will be launched within the next few weeks.

The Santa Rosa Marine Co., located on the Blackwater River just above Milton, is one of the first shipbuilding plants put into operation in this county, or in West Florida, for that matter. This plant is now building a freighter which will be ready for launching early in the spring, and a very considerable force of men is employed.

The Hoodless shipyard, one of the oldest shipbuilding plants in West Florida, if not in the entire State, has been in continuous operation for more than 50 years.



GENERAL VIEW SHIPYARD TAMPA DOCK CO., TAMPA, FLA.

STEEL STEAMSHIP "WAR WORK," 3500 TONS, NOW BUILDING BY TAMPA SHIPBUILDING & ENGINEERING CO.

War Work has followed its example, the Oscar Daniels Company will be at work on four at a time.

The Oscar Daniels Company contract is roughly figured at \$16,000,000, and calls for the completion of the ships in a year's time. Additional equipment costing \$300,000 will be installed, and announcement has been made that the company is considering the development as of a permanent nature, expecting to continue its shipbuilding work after the completion of the present contracts. There will be a demand for more ships, Mr. Daniels and his associates figure, and they are equipping the Tampa plant to meet that demand.

Work is proceeding on the double-shift plan, with no let-up Sundays or holidays. M. P. McDonagh, representative here of the Shipping Board, is co-operating with the builders in every possible way. The ships are of the standard type contracted for by the Shipping Board.

January, 1916, brought the first shipbuilding contract to Tampa, when the Tampa Foundry & Machine Co. announced that it would build a 2000-ton river steamer for the Central Hudson Steamship Co. This steamer was a made-in-Tampa product throughout. The Tampa Foundry & Machine Co., which later was absorbed in the organization of the \$700,000 Tampa Shipbuilding & Engineering Co., constructed all the parts at its foundry on the Hillsborough River, and erected the ship itself on the ways built on the east shore of Sparkman Bay, at the mouth of the estuary.

The first Tampa steamer, the Poughkeepsie, was launched September 23, 1916, and after the builder's trials was taken along the coast to New York and delivered at Albany. Designed to crush its way through broken ice when navigation might be difficult or dangerous for a less sturdy ship, the Poughkeepsie is reported to have given its owners the greatest satisfaction. Before it was launched contracts had been tendered the Tampa shipbuilders and an order for two 3500-ton freighters was accepted, to be built for the Cunard Line of England.

The Tampa Shipbuilding & Engineering Co. has developed its estuary plant on a large scale, utilizing, however, only a portion of the 42-acre tract, with 1600 feet along the Ybor channel and Sparkman Bay turning basin, which has been dredged to a depth of 24 feet,

are planned, including the Kettler-Elliott Erection Co., Chicago, which is said to be planning the building here of fabricated steel ships.

F. F. Bingham, one of the original shipbuilders at Pensacola, has completed two motor-driven schooners, each of which was sold on the ways to foreign governments. The Stjarnan, a schooner about 165 feet in length, was the first, and when about one-third completed it was bought by the Danish Government.

A second schooner, the Pensacola, 250 tons, which was launched within the past few days, was bought by the French Government when about 50 per cent. completed. Mr. Bingham is now arranging to lay the hull of a third and a larger schooner, probably about twice the size of the Stjarnan. This keel, it is said, will be laid before the end of January.

The Bruce Drydock Co. completed construction work October 1. Beginning May 1, the company has dredged and filled 20 acres of land, giving an average of 25 feet of water at the bay front of Pensacola, where there was formerly but three feet at normal tide. Besides their dredging operations, they built over 1000 feet of creosoted timber wharves and 500 feet of creosoted bulkheading. Five sections of floating docks were constructed with a lifting capacity of 1200 tons, and the necessary shop buildings, storeroom and office buildings were also completed.

November 1 the company began business, and since that time more than 20 vessels have been overhauled. This company laid plans not only for repair business, but also for construction of vessels for the United States Shipping Board. Their building site can accommodate at least 12 vessels. They are now negotiating for steel vessels, and can successfully handle the 8800-ton fabricated steel ship if contracts are awarded them.

The company's future plans cover the construction of one additional sectional dock and a large floating drydock with lifting capacity of 5000 tons. Plans have already been accepted for the large dock, and the company, it is announced authoritatively, expects to begin construction immediately.

At Milton, in Santa Rosa county, which adjoins this county, there are several promising shipbuilding plants. Excellent facilities obtain there, for the yards are situated on fresh-water sites, and three big saw and planing mills are nearby, which furnish rough and dressed lum-

This plant, it is stated, while confining its work in the past to the repair of vessels and the construction of small ones is now actively engaged in building an ocean-going freighter of about 400 tons. Two of these vessels are about ready for launching, and Captain Hoodless states that the keel for the third will be laid before the end of January.

The Bagdad Shipbuilding Co., located at Milton, having been opened there shortly after the declaration of the war, is now completing a three-mast 1000-ton schooner, which will be launched early in 1918. This perhaps is the most pretentious ship-working plant in Santa Rosa county, and the incorporators plan to build one ship after another. The site is reached by a channel from Pensacola through Escambia Bay and the Blackwater River, but there are two sand bars, it is said, which the Government will be asked to remove as soon as it is a certainty that ships, badly needed by the Government, may be successfully built and launched up in the freshwater basins.

The Bay Point shipbuilding plant is located four miles south of Milton, and is actively engaged in building submarine chasers for the Government, several of which are now on the ways.

### Mobile to Have 10,000-Ton Drydock.

[Special Dispatch to Manufacturers Record.]

Mobile, Ala., January 7.

The Alabama Drydock & Shipbuilding Co. will in the near future begin construction of a 10,000-ton drydock at Mobile. The dock will cost \$600,000, and is to be installed here with the assistance of the Federal Government. The fact that the Government is interested itself in this project strengthens a local belief, based on reports from Washington, that Mobile will be recommended by the Admiral Helm's investigating committee on a naval base in the Gulf. The dock will be erected on the Alabama company property close to the junction of Mobile River and Mobile Bay. Information from an authoritative source says the dock, which will be the largest of its kind on the Gulf, will be used for repairing Government vessels of 5000 tons and over plying the Gulf and South Atlantic. It will also be used for private work.

### Mobile to Become a Great Shipbuilding Center.

Mobile, Ala., January 2—[Special.]—At the time that the United States Steel Corporation selected Mobile as the port for its \$10,000,000 shipyard there were five shipbuilding industries located here, all but two of them new concerns. All are to be permanent in nature and will be enlarged in capacity as occasion justifies. In former years four industries now units of the Alabama Drydock & Shipbuilding Co. did much repair work and built some vessels of small draft. But nothing in the nature of really big work was undertaken. Today this

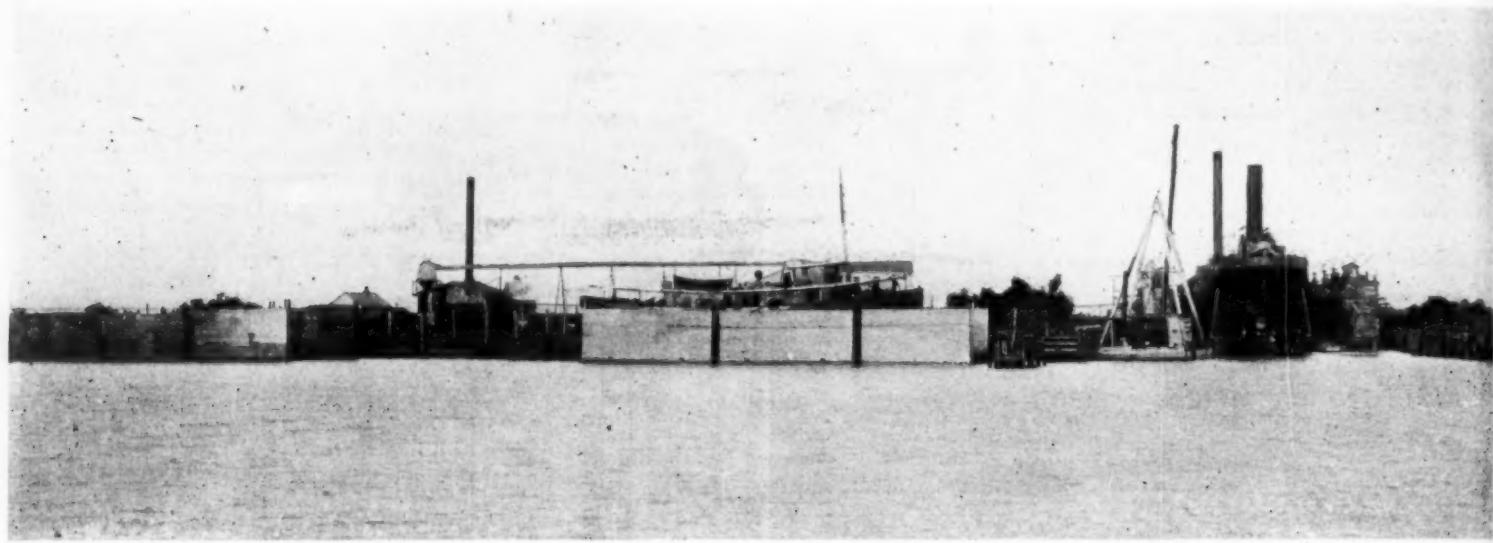
the United States Steel Corporation, which will construct 10 building ways, the preliminary work for which has already begun, are, in brief:

Alabama Drydock & Shipbuilding Co. reported unofficially to be building nine steamships for the United States Government at a cost of \$4,500,000. Construction will begin shortly on ways for the building of ships of 8400 tons carrying capacity. The ways will be especially designed for the launching of steel vessels. Fifteen hundred men are employed by the Alabama Drydock & Shipbuilding Co.

The Henderson Shipbuilding Co.'s first contract since

work along that line. The plant has a capacity of five vessels, but this can be easily enlarged to eight. The company has completed one three-masted schooner, the A. G. Somerville, 465 net tons, for J. W. Somerville and associates. This vessel is now in service. The company has also built one barge and three fishing schooners since it began operations.

The plant is now building two four-masted schooners, one of them for J. W. Somerville, and three oil barges of 1400 tons each. The company is especially equipped for barge construction, and has several contracts for barges.



PINTO SHIPBUILDING AND REPAIR PLANT, ALABAMA DRYDOCK & SHIPBUILDING CO., MOBILE, ALA.

port's shipbuilding record is 34 vessels either completed or about to be, as follows:

Two submarine chasers, 110 feet long completed and launched.

Two submarine chasers, 110 feet long, nearly completed, not yet launched.

One three-masted schooner, 500 tons register, nearly completed, not yet launched.

The following boats are now being built:

Six composite steamers, 3500 tons each.

Four wooden steamers, 3500 tons each.

Three steel tugs, 950 tons each.

The following ships have been contracted for, but not yet started, except as for preliminary work and ordering materials:

Twelve composite steamers, 3500 tons each.

Two wood steamers, 3500 tons each.

Two four-masted steel barges for coal transportation purposes 4500 tons each.

It is reported, but not confirmed, that a contract was offered the Henderson Shipbuilding Co. by the Italian Government to build four steamships at an aggregate cost of \$2,000,000. The last report was that the contract was still pending, there being certain details to be concluded.

The main facts about local shipbuilding plants, not including the Chickasaw Shipbuilding Co., subsidiary of

its recent organization was four submarine chasers at a cost of \$640,000.

The Mobile Shipbuilding Co., the ship-contracting branch of the Kelly-Atkinson Contracting Co., Chicago, is constructing six building ways for its contract for 18 steel and wood composite vessels for the United States Shipping Board. They are to maintain their own machine shops and other necessary adjuncts to a modern shipbuilding concern. It was officially announced that the building of these ways is not merely for Government contracts held, but for permanency.

The Murnan Shipbuilding Corporation, incorporated under the laws of Delaware for \$3,000,000, will construct four ships for the Federal Government. Two ways are complete and keels are laid on them.

The J. M. Scott shipbuilding yards are constructing six auxiliary schooners. The plant is on Chickasabogue, very convenient to the point where the Steel Corporation yard will be built.

### Gulfport Building Number of Schooners.

Gulfport, Miss., January 4—[Special.]—The Gulfport Shipbuilding Co. is specializing in the construction of vessels for the commercial trade and is doing good

### Shipbuilding Activities at Biloxi.

Biloxi, Miss., January 3—[Special.]—The shipbuilding plants along this section of the Mississippi coast are making fair progress in the construction of ocean vessels. The Mississippi Shipbuilding Corporation has three wooden vessels under construction and one nearly completed. All of the ships are of 2200 tons each.

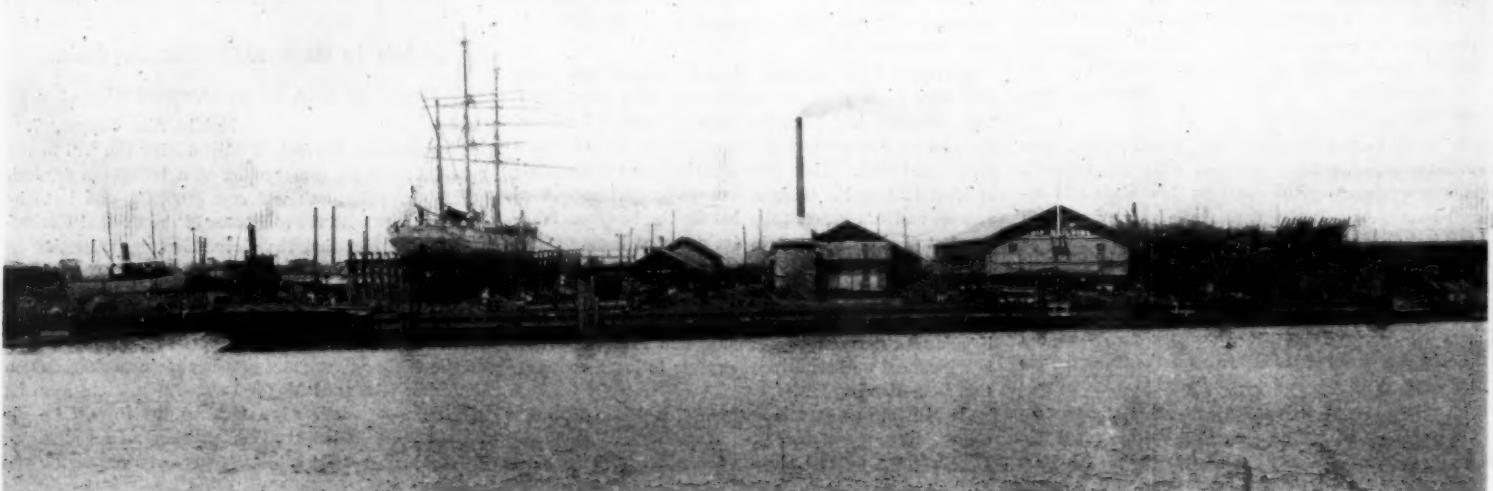
The Biloxi Shipyard and Box Factory is building a four-masted schooner of about 1000 tons net tonnage for J. F. Stuard and associates of Gulfport.

The Stuard Shipbuilding Co. of Gulfport has completed one four-masted schooner of 1600 net tonnage, and is building another four-masted schooner of about 1800 tons dead weight. The Stuard plant is located at Handsboro, on the Bay of Biloxi.

The Biloxi Shipyard and Factory is engaged in the construction of a number of fishing vessels for the Gulf trade of various sizes. This plant has been principally devoted to repair work on vessels, but is now engaged in construction operations. It is equipped to build barges and tugs, and has five ways.

The Coast Shipbuilding Co. is engaged in the construction of one vessel, and has contracts for several others.

The plants in this section have been handicapped somewhat by the slow delivery of material, but timber is reaching the yards in better time now.



GENERAL VIEW GULF DRYDOCK DEPARTMENT, ALABAMA DRYDOCK & SHIPBUILDING CO., MOBILE, ALA.

#### 45 Vessels Under Way or Contracted for at Pascagoula.

Pascagoula, Miss., January 3—[Special.]—There is now in process of construction or under contract at the port of Pascagoula 24 wooden vessels of 3000 to 3600 tons each, and 15 steel ships of 6500 to 9500 tons each, which, with 6 wooden three and four-masted schooners, makes a total of 45 vessels of all kinds.

A new impetus was given to the shipbuilding industry at Pascagoula when the International Shipbuilding Co. (Henry Piaggio) commenced work on the newly acquired 1800 feet of river front on the East Pascagoula River, where it will build some 15 steel vessels of 8500 to 9500 tons burden each. This company had already been at work building and making ready for the construction of 12 wooden ships of 3600 tons each, and this additional construction will require some 3000 additional laborers.

The International Shipbuilding Co. has built on its land a 50-room hotel for the accommodation of its employes, and is building a number of small bungalows for its workmen.

The Dierks-Blodgett Shipbuliding Co. has under way, with the frames nearly completed, four wooden vessels of 3600 tons each.

The Dantzler Shipbuilding & Dock Co. of Moss Point, Miss., has four wooden vessels of 3600 tons each under headway, and will build many more.

The Hodge Shipbuilding Co. (formerly Huey-Hodge), on the Escatawpa River, has one frame up and has three keels laid for 3600 tons vessels.

The John De Angelo Shipyard at Moss Point, on the Escatawpa River, is pushing to completion a three-masted schooner of 500 tons burden, and as soon as it is off the ways a four-masted schooner will be begun; also three more three-masted schooners of not less than 500 tons and one more four-masted schooner. John

De Angelo, the veteran founder of this enterprise, was accidentally killed at this yard November 18 (age 74) by a piece of falling timber. The business will be continued by his two sons, Steven and Frank De Angelo.

At the M. M. Flechas Shipyard in Pascagoula the schooner Flechas, an illustration of which lately appeared in the MANUFACTURERS RECORD, is being equipped for sea.

The population of the city of Pascagoula has increased more than 25 per cent. during the past five months, owing to the shipyard industry. The commercial organization of Pascagoula guarantees to any shipyard company a free site, and an act of the Legislature of 1917 exempts all shipyards from State, county and municipal taxation for a period of five years, beginning with the date of construction.



EMPLOYES' HOMES, INTERNATIONAL SHIPBUILDING CO., PASCAGOULA, MISS.

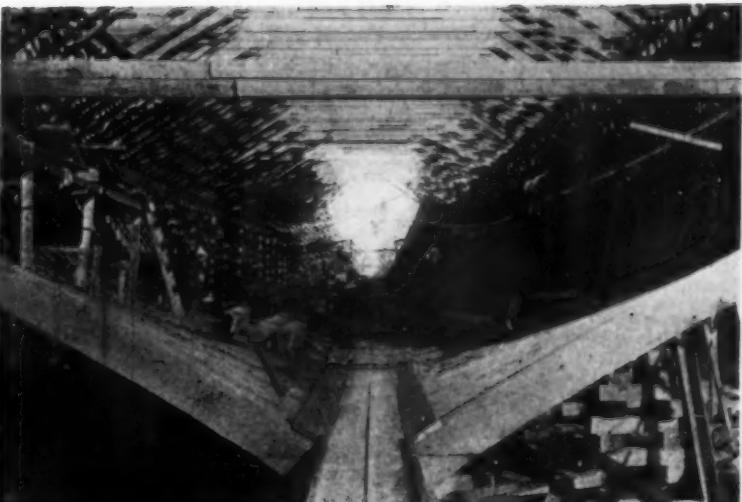
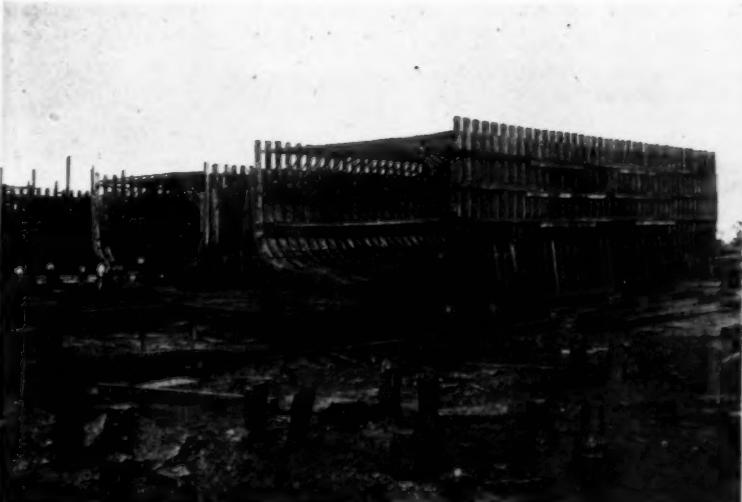
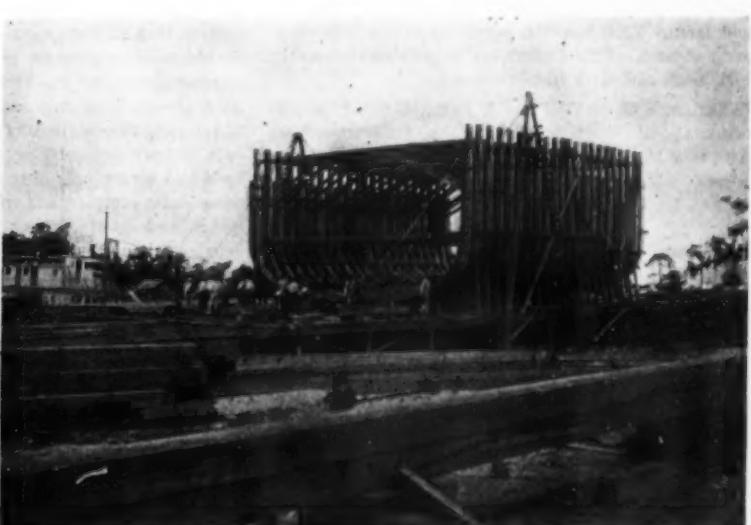
The International Shipbuilding Co. has a large shed under which all the waste material of the yard will be utilized in the building of fishing smacks, yawl boats, gasoline launches, etc.

The city of Pascagoula has just purchased a piece of land at the mouth of Pasengoula River, 3700 feet frontage, known as Paquette's Point, which it will utilize for public docks, warehouse, etc., and a bond issue of \$40,000 will be shortly issued for the purchase of land, etc., it being proposed to dredge out the approaches to this land to the depth of 22 feet, which is official depth of the channel of the Pascagoula River.

#### New Orleans Interests Working on Number of Wooden Ships for Emergency Fleet.

New Orleans, La., January 5—[Special.]—The shipbuilding industry in the vicinity of New Orleans is characterized by an unprecedented rush as the gangs of workmen converting Louisiana long-leaf timbers into the ribs of seagoing vessels are becoming more familiar with their work.

There is a general disposition on the part of those directing the construction of these boats to have "nothing to say" regarding details of their work in supplying



VIEWS IN SHIPYARD OF INTERNATIONAL SHIPBUILDING CO., PASCAGOULA, MISS., SHOWING VESSEL IN VARIOUS STAGES OF CONSTRUCTION, FROM LAYING FIRST KEEL, AUGUST 18, 1917, TO ADVANCE STAGE OF FRAME CONSTRUCTION, DECEMBER 3, 1917.

Uncle Sam with deep-sea carriers, but it is known locally that things are progressing more than favorably. The greatest yards that are doing work for the Emergency Fleet Corporation in the immediate vicinity of New Orleans are those controlled by the Jahncke Shipbuilding Corporation, opposite New Orleans, on the edge of Lake Pontchartrain.

Pursuing the general tendency to "do much and say little," Ernest Lee Jahncke, the president of the local corporation, is devoting practically his whole time to the rushing to completion of the contracts given him by the Emergency Fleet Corporation.

In an interview with Paul F. Jahncke, the vice-president, and Walter F. Jahncke, secretary-treasurer, of the local corporation, it was stated to your representative that Louisiana's prized pine, the long-leaf, was being used exclusively in the building of the Government vessels, save for a small quantity of oak in the bow-stem. Mr. Paul Jahncke said that their work followed absolutely the plans of the Emergency Fleet Corporation, and that a description of one vessel of this type sufficed for all. Other than this, it was explained, they could not make public any other details of their Government work.

It is considered that the Jahncke plant will become a permanency in shipbuilding.

At Slidell, also "across the lake," the Slidell Shipbuilding Co., Inc., of which Fred W. Salmen is president, finishing touches are being put on the Baltic No. 3, and it is expected that the Baltic No. 4 will be launched before the end of January. The first two of the Baltic fleet, known as the Flirt and the Flush, were completed some time ago, as noted in the MANUFACTURERS RECORD some months ago. The Maple, the small passenger vessel recently completed by this company, is now in the river at New Orleans having her machinery installed.

The Government has been extremely busy in Lake Pontchartrain with their dredges, and a 12-foot channel through what is known as the "middle ground" has been completed and the channel has been marked. This removes the only shallow spot in the lake that has been thought to be a bar to shipbuilding operations along the lake front. This, however, is but the first of this character of work, as the dredges are to immediately go over their work and cut a 16-foot channel.

The yards of the Alabama & New Orleans Transportation Co. at Violet, just below New Orleans, is busy with four big tankers for the Mexican oil trade. These vessels, which have been described in the MANUFACTURERS RECORD, are of steel.

#### Shipbuilding at Lake Charles.

Lake Charles, La., January 2—[Special.]—Herewith a brief statement of the work turned out at the plant of the Clooney Construction & Towing Co. at West Lake Charles, La., since June, 1917. Previous to that time this plant was principally occupied in the construction of bulk oil carrying barges for the Mexican trade, and had a capacity of three building ways, one stationary full circle derrick crane and one heavy-duty locomotive crane.

During May and June this plant took on some heavy contracts and added two additional building ways and one additional heavy locomotive crane, making the pres-

ent equipment five building ways, one full circle derrick crane and two heavy-duty locomotive cranes.

Contracts completed during the period mentioned and delivered prior to January 1, 1918, were 30 in number, with a registered tonnage of 15,674. The principal items were: Four auxiliary schooners, 175x36x14; one railroad transfer barge, 244x42x11; one three-mast barge, 184x37x14; two three-mast sailing schooners, 165x35x13; oil-carrying barges, 200x40x11; steamers, 208x41x19.

At the present time on the ways are: Three scow oil barges, 175x40x9, with a registered tonnage of 661 each; one ocean-going model barge, with a registered tonnage of 800; one sectional drydock.

We have a maximum of six feet of water through the Calcasieu-Sabine section of the Intercoastal Canal for delivery of products, and the Clooney company has been obliged to deliver some of their boats on barges or to drag them over the bar at Calcasieu Pass at flood tide, where the very best water is only seven feet.

During December, 1916, wards 3 and 4 of Calcasieu parish voted a special tax for a bonded indebtedness amounting to \$260,000 to deepen and widen the Intercoastal Canal and asked the Government to match dollars with them to enlarge this canal to a nine-foot depth by 90-foot bottom width. An appropriation was included in the last Rivers and Harbors Bill of \$230,000 for this purpose, which work is now under way.

All work up to the present time by the Clooney Construction Co. has been for private parties, and they have not attempted any Government contract, as all Government vessels are too large for our present water outlet.

The necessity of deeper water outlet for Lake Charles is of paramount importance at this time, not only from a shipbuilding standpoint, but to care for the enormous tonnage possible to be handled by water, including oil, lumber, rice, sulphur and cattle.

#### Shipbuilding at Orange "Very Much Alive."

Orange, Tex., January 2—[Special.]—Let us say, for the benefit of the MANUFACTURERS RECORD and its readers, that all these cartoons of Uncle Sam asleep on the shipbuilding program are only partially true. The greatest portion of the Gulf yards, at least, are very much alive, but patiently waiting for the Shipping Board to complete the details so that the yards can go ahead on a 100 per cent. rush program. There are ways and keels laid for 28 hulls in Orange, with 20 or more other ships under contract, and we believe we have a right to call it the largest wooden-hull point in the South. The details of launching we are not permitted to give, but brief facts about activities at Orange yards are as follows:

National Shipbuilding Co., building or under contract, twelve 4500-ton wooden ships, 315 feet over all, 48-foot beam, 25-foot draft. These 12 ships are on Government contracts, under specifications of builders, to be delivered complete. Also building for Cunard Line two steamers, 4500 tons each, 49-foot beam, 25-foot depth of hold, and four oil tankers, of approximately same dimensions, for account of builders.

International Shipbuilding Co., seven ships on ways, 301 feet in length, 44-foot beam, 25-foot depth of hold, 3600 tons; one ship of same dimensions in water now being rigged; fifteen 3600-ton ships under contract. All of these ships are auxiliary sailers.

Southern Drydock & Shipbuilding Co., five standard Government hulls.

Orange Maritime Corporation, three ships, 203 feet over all, 41-foot beam, 22 feet 3 inches hold, 2200 tons, account of builders.

Ed Weaver & Sons, one ship, 700 tons, 19 feet depth of hold, 36-foot beam, 165 feet in length, account of Southern Drydock & Shipbuilding Co.

International Shipbuilding Co. has completed and sailed three ships of 2000 tons each.

Orange Maritime Corporation built one ship in Beaumont, which was rigged out complete in Orange and sold.

Orange was the first Southern port to build large wooden ships. Several additional contracts are in sight. The Miller-Link and Lutcher & Moore mills here furnish a large percentage of timber for these contracts. There are approximately 4000 men employed in the shipyards at Orange.

#### Nineteen Wooden Ships Building at Beaumont.

Beaumont, Tex., January 2—[Special.]—Wooden ships numbering 19, and on which approximately 1600 mechanics and laborers are employed, are now under construction at Beaumont in the six local shipyards. Sixteen of the ships are for the Government. With labor-saving devices as used in modern yards, one Government boat which has been under way for only five weeks is expected to be launched within a week or two. Two large schooners are to be launched in January, the boats having been started about one year ago and some labor trouble having been experienced.

The investment represented by the 19 hulls is \$5,950,000, extraneous to the cost in building and equipping the plants themselves.

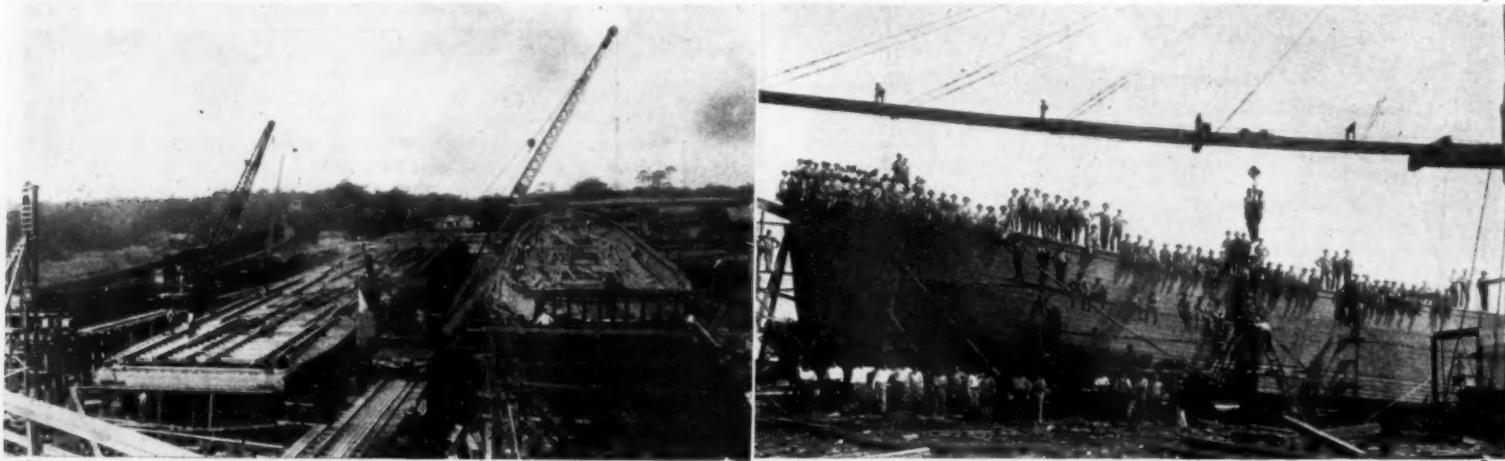
Each of the six companies continually is increasing its force, and within 60 or 90 days the number of workmen employed is expected to exceed 3000. Since January 1, 1917, Beaumont's population has been increased by at least 5000 by this industry alone, and as a result rent houses are in great demand.

The shipbuilders' payrolls amount to more than \$43,000 a week, and much of this money is turned loose in the local channels of trade.

The average cost of 18 of the vessels is \$325,000 each, and that of the remaining vessel is \$100,000. The Government vessels will have a capacity of 3500 tons each. Yellow pine lumber to the extent of 8,000,000 feet and hardwoods of about 1,000,000 feet are being used in the construction of the vessels.

The Beaumont Shipbuilding & Drydock Co., of which J. W. Link of Houston is president, and the Lone Star Shipbuilding Co., with New York and Boston capital, and of which Walter J. Crawford of Beaumont is Texas representative, both have Government contracts for six boats. Already the latter concern has laid the keels for three boats not included in the foregoing total. It is this company which is vying with Henry Piggio, exporter as well as shipbuilder, as to the launching of the first large wooden ship here. The former recently began working a night force. It expects to launch its first ship in February and another in a month. Virtually all of the shipbuilding concerns are after more contracts.

The Tarver Shipbuilding Corporation is building a small schooner which will be ready for launching about March 1. The vessel is intended for commercial use,



SHIPYARD VIEWS, CLOONEY CONSTRUCTION & TOWING CO., WEST LAKE CHARLES, LA.

and its capacity will be 700 tons. Mr. Piaggio is building his two large schooners for his own use in exporting.

The names of the builders, the number of ships under construction and the average number of employees at the yards at Beaumont are as follows: Beaumont Shipbuilding & Drydock Co., six ships for the Government, 400 men; McBride & Law Shipbuilding Co., four ships for the Government, 400 men; Henry Piaggio, two ships for commercial use, 375 men; Lone Star Shipbuilding Co., four ships for the Government, 200 men; Tarver Shipbuilding Corporation, one ship for commercial use, 125 men; J. N. McCammon Shipbuilding Co., two ships for the Government, 100 men.

No labor troubles, at the present writing, exist in Beaumont. In November carpenters and joiners of the local union walked out on a Friday and returned to work on the following Monday. An increase in wages asked was granted. A general shortage of labor exists throughout this section. It is being felt in the shipbuilding and also the sawmill enterprises.

### Many Wooden Ships Under Construction on Houston Ship Channel.

It is understood that the shipbuilding activities on the Houston Ship Channel involve the construction of 18 hulls of 3000 tons each and 12 ships of 3000 tons each—all wooden vessels. The aggregate cost of these will run over \$10,000,000.

Within eight miles of Houston another company is building 12 seagoing barges of the wooden type, the average cost of these completed will be about \$46,000 each.

Among the companies which have established plants for shipbuilding purposes on the channel are the Pan-American Trading Co., a \$10,000,000 corporation, which has six shipways, and the Midland Bridge Co. of Kansas City, which has also established a plant to build six hulls at one time. It is understood that several other concerns have secured options on available sites on the channel for the establishment of shipbuilding plants, so that the Houston district is showing unusual activity in doing its part toward providing ships for the nation's need.

### Shipbuilding Plans at Galveston.

Activities are represented at Galveston by the plant which the Seaboard Transportation & Shipping Co. has established at a cost of \$100,000, with plans for future additions. This organization was formed last May with \$500,000 capital and proposing an increase to \$750,000. It is controlled by Galveston, Houston and New Orleans capitalists, with Henry J. Schutte as general manager and T. J. Anderson as naval architect and marine engineer in charge. The Seaboard shipbuilding plant includes a marine railway capable of hauling out ships up to 1000 tons, and to this will be added a drydock and general shipbuilding facilities. It is now converting a large steel barge, purchased in Central America, into an oil barge at a cost of \$75,000. This vessel is 212 feet long, with 31-foot breadth of beam. The management of the Seaboard Transportation & Shipping Co. anticipates many important contracts and the development of an extensive trade in wooden shipbuilding because of the proximity of Galveston to the Texas and Louisiana pine timber forests.

### Shipyards for Darien, Ga.

Wooden three-mast schooners of 500 tons net register will be constructed by the Darien (Ga.) Shipbuilding Co., which has been organized to build shipyards. Officers as follows: Robert Manson, president; F. H. MacFarland, vice-president; R. J. Downey, secretary-treasurer; each of Darien; T. S. Lawrence, general manager, Brunswick, Ga.

Marine iron work will be manufactured by the Marine Iron Works of Norfolk, which has chartered with a capitalization of \$50,000. This corporation will continue and enlarge the marine supply and repair plant of B. O. Colonna and associates. Its officers are: B. O. Colonna, president; W. B. Drury, vice-president; W. W. Colonna, secretary-treasurer.

### Proposed Plant at Southern Port to Manufacture Concrete Ships.

Concrete ships will be constructed at or near some Southern port by the Liberty Shipbuilding Co. of Boston, and Port Wentworth, Ga., near Savannah, is being considered as the site of the plant. The vessels will be of 3000 tons capacity and will be propelled at a speed of 11 knots per hour. They can be constructed in three months. Max Schoolman and W. R. Scudder of Boston and E. B. Briggs of Bath, Me., representing the company, are investigating the advantages of Port Wentworth, Brunswick, Ga.; Charleston and Georgetown, S. C., as locations for this shipyard.

### Building Ships at Aransas Pass.

Heldenfels Bros. of Beeville, Tex., are establishing a shipyard at Rockport, Tex., for the construction of wooden ships, and their initial contract is a Government order for building four hulls costing \$300,000 each.

### Urge "Free Ports" as Aids to Foreign Trade.

In urging the establishment of "free ports" to further the growth of foreign trade, William Morris Imbrie & Co., New York, in a recent publication, say in part:

"The United States has entered upon a new commercial period, having in the last few years built up an extensive foreign commerce. To maintain and extend this, every effort is required. One of the means to this end as demonstrated by other countries is the establishment of 'free ports.'

"A 'free port' is a zone within a port where no duties are levied on goods entering or leaving the zone unless they pass from it into domestic consumption. It does away with practically all the delay, annoying detail and loss now caused by the complicated system of checking required.

"Equipped with ample wharves, terminals and machinery for handling cargoes, the 'free zone' attracts shipping and merchandise both for import and export, and becomes a clearing-house for foreign commerce.

"The 'free zone' aids the growth of the rest of the port, as it attracts to itself only those manufacturers and shipping which are peculiarly benefited by the freedom from tariff payments and regulation.

"The adoption of strategically located 'free ports' by the United States would seem to be a great aid in establishing its foreign commerce on an unassailable basis."

### \$2,000,000 Steam-Driven Electric Plant.

By July the Appalachian Power Co. of Bluefield, W. Va., expects to complete its \$2,000,000 steam-driven electric plant now under construction at Glen Lyn, Va. Describing this big station for generating electricity, Herbert Markle, general manager of the company, writes to the MANUFACTURERS RECORD:

"Our power-house building at Glen Lyn will be 150x150 feet, with provision for an extension in the future so as to provide for an ultimate capacity of 75,000 kilowatts. This plant will have an initial capacity of 18,750 kilowatts, consisting of one steam-driven turbine of General Electric make. Its initial boiler equipment will consist of four 1250-horse-power boilers, provided with Foster superheaters, automatic stokers and coal-handling machinery. The present unit is being designed and constructed by Viele, Blackwell & Buck, consulting engineers, New York. The building will be of concrete, brick and tile. Water intake, etc., is being provided to take care of the ultimate capacity of the plant. The present power-house and equipment will cost approximately \$2,000,000, and it is expected it will be completed by July 1. The turbine is to be furnished by the General Electric Co., Schenectady, N. Y.; boilers by Babcock & Wilcox, New York; reinforcing steel for building by Concrete Steel Co., New York; transformers by General Electric Co.; condenser and pumps by Wheeler Condensing & Engineering Co., Carteret, N. J.; Foster superheaters by Power Specialty Co., New York; stokers by Westinghouse Electric & Manufacturing Co., New York; switchboard apparatus by General Electric Co. The plant is a part of the Appalachian system which now consists of about 500 miles of high-voltage transmission lines."

### Government Report on Petroleum Production.

The following comparative summary of crude petroleum movement in November, 1917, represents the operations of 174 pipe-line and refining companies that handle or receive oil direct from the productive fields east of the Rocky Mountains, and is compiled from reports received by the United States Geological Survey, Department of the Interior, prior to noon of December 27, 1917.

This compilation includes statements filed by 43 companies operating in the Appalachian field, 11 in Lima-Indian field, 6 in Illinois field, 77 in Oklahoma-Kansas field, 13 in Central and North Texas fields, 7 in North Louisiana field, 9 in Gulf Coast field, 8 in Rocky Mountain field.

#### CRUDE PETROLEUM MOVED FROM FIELD SOURCES.

(Barrels of 42 gallons each.)

	November	October	November
Source of Oil	1917	1917	1916
Appalachian	2,011,409	2,147,178	1,805,250
Lima-Indiana	279,841	288,500	316,336
Illinois	1,235,761	1,311,554	1,455,086
Oklahoma-Kansas	13,185,505	13,339,669	9,668,341
Central and North Texas	986,244	991,324	792,560
North Louisiana	339,836	826,179	782,689
Gulf Coast	1,613,538	1,815,171	1,460,682
Rocky Mountain	776,733	846,697	628,184
Totals	20,428,867	21,576,878	16,901,207

#### CRUDE PETROLEUM DELIVERED TO REFINERIES OR CONSUMERS.

(Barrels of 42 gallons each.)

	November	October	November
Source of Oil	1917	1917	1916
Appalachian	2,175,493	2,486,660	1,803,641
Lima-Indiana	350,826	259,471	459,646
Illinois	1,238,260	1,357,581	1,589,769
Oklahoma-Kansas	15,289,552	15,957,666	12,024,504
Central and North Texas	1,176,445	882,371	553,170
North Louisiana	737,818	928,418	1,023,923
Gulf Coast	1,366,507	1,716,542	1,718,184
Rocky Mountain	857,354	840,370	647,741
Totals	23,172,255	24,429,079	19,820,578

#### STOCKS OF CRUDE PETROLEUM AT END OF MONTH.

(Barrels of 42 gallons each.)

	November	October	November
Source of Oil	1917	1917	1916
Appalachian	3,969,133	4,113,217	4,021,928
Lima-Indiana	2,017,406	2,068,391	2,238,103
Illinois	4,177,799	4,180,298	6,774,345
Oklahoma-Kansas	96,667,309	98,751,556	95,585,314
Central and North Texas	3,169,297	3,359,498	4,692,220
North Louisiana	2,944,677	3,342,659	4,198,087
Gulf Coast	9,702,639	9,455,606	9,279,888
Rocky Mountain	493,254	673,575	781,849
Totals	123,141,514	125,864,902	127,571,734

NOTE.—Statistics of petroleum movement in California not included.

The summary for November, comments a general decrease in crude-oil production that may be regarded as seasonal, except in the North Louisiana and Gulf Coast fields, where field operations were below normal in consequence of a strike of oil-field workers called November 1. With regard to crude-oil consumption it indicates demand in excess of current supply in all fields except the Gulf Coast and demand in excess of October requirements so far as Lima-Indiana, North Texas and Rocky Mountain oils are concerned, though less than in October for the product of the other fields listed. Stocks were drawn upon in November in all fields (notably in the Oklahoma-Kansas field) except the Gulf Coast, where, despite the strike, slight additions to surface reserves were made.

### Texas Bank Deposits Show \$200,000,000 Increase.

Austin, Tex., January 5—[Special.]—An increase of \$140,000,000 in the deposits of the National banks of Texas and \$60,000,000 in the deposits of the State banks during the period of September 11 to November 20, 1917, is shown to have occurred by the reports of the different institutions which have just been completed. This enormous increase was caused chiefly by the marketing of the cotton crop. The bank deposits in Texas are the heaviest ever known, despite the heavy contributions that have been made to various phases of the war cause and other purposes. Comparatively little in the way of land or industrial investments is being done. The building activities are beginning to show a falling off in the larger cities. The automobile trade is also slackening. Bank depositors are apparently satisfied for the present with leaving their money uninvested.

### FOR PURCHASING COTTON.

Proposed New Plan, Devised by Committee Appointed to Consider the Matter, Put Before Spinners.

[Boston Transcript.]

Messrs. Randall N. Durfee, John Sullivan, Charles B. Luther and Ronald T. Lyman, acting as a joint committee of the National Association of Cotton Manufacturers and of the Arkwright Club, have put before cotton spinners a proposed new plan for payments upon shipments of the staple. The attention of the cotton textile interests all over the country has been drawn to this matter of financing the American crop, and the joint committee has met several times to go over the matter. The conclusions of this body are shown in the following statement:

Egyptian cotton is purchased payment ten days after arrival, with quite satisfactory results. Owing to the rapid and enormous fluctuations of the past few years and the present high prices, more and more complaints and rejections of shipments are taking place. Those who have given the matter careful attention are of the opinion that conditions would be vastly improved and a very large percentage of the trouble eliminated if the American cotton crop could be financed as the Egyptian cotton crop, payment ten days after arrival at destination.

The Southern shipper does not pay for cotton until he has had a chance to examine the same. It seems no more than fair that the Northern spinner should be given the same opportunity, as he is many miles away from the source of supply, while the Southern shipper is practically on the spot. It is the general opinion that if cotton was paid for ten days after arrival, every party would have an interest in the shipment, which is not now the case, as, with the payment of the draft drawn at sight with bill of lading attached, the Southern shipper, the Southern bank and the transportation company are apparently relieved of all interest, which is borne entirely by the spinner. It seems to be conceded that if cotton were paid for ten days after arrival, more care would be used in the quality of the shipments, which would mean less rejections at the mill. Less time would also be taken in transportation, as the shipper would see that the cotton was forwarded promptly, and the transportation agent would do all in his power to expedite delivery, knowing that future business depended on the speed with which his road did the transportation. The spinner would also be relieved financially, as he would not have to use so much money in financing his requirements, and he could also be more assured that the shipments would come through of the quality purchased.

The objections to the proposed change are as follows: Banks might object to the purchase of paper bearing an indeterminate maturity, which of course would be the case if cotton was paid for ten days after arrival; this objection could probably be eliminated in time. If, however, it was found insurmountable, the cotton could be sold on 60 or 90 days' time, and under such terms a very large percentage of the shipments would arrive at the mills before the due date and be examined, which, of course, is what the manufacturers mainly are after. The other objection would be on the part of certain mills who might feel it would cost them more to have their financing done by others than if they attended to same themselves. It is, however, expected that if there was an additional expense it would more than be made up by better deliveries and less time in transportation.

Before proceeding further the committee decided that the matter be placed before the spinners. The statement concludes as follows:

"We would therefore request an answer to the following questions. If there seems to be a unanimity of opinion we can then proceed further:

"First—Do you favor such a plan in buying American cotton?

"Second—Do you consider such a plan practicable?

"Third—if in favor, will you join in a movement to put such a plan into effect if 75 per cent. of the Eastern mills reply in favor?

"We shall be glad to receive any suggestions which you may care to make regarding the proposed change. Kindly address letters to the secretary of the National Association of Cotton Manufacturers, 45 Milk street, Boston, Mass."

## Cost of Producing Cotton Before and Since the War

By W. B. YEARY, Assistant Director, Bureau of Markets, State Department of Agriculture, Austin, Tex.

[As one who from boyhood has been identified with cotton production and cotton marketing in all its forms, Mr. W. B. Yeary of Texas is pre-eminently qualified to discuss the very pertinent question of what is a reasonable price for the cotton farmer to get for his crop. There is some very loose talk these days, by newspapers and others, of the "extortion" which the cotton farmers are forcing upon the country by their efforts to maintain a higher level of prices than have prevailed in recent years. Mr. Yeary analyzes the costs of the various items which enter into cotton production, and his presentation of the situation herewith will certainly call for intelligent consideration, at least, by those who have been denouncing the South because it does not join in a movement to limit the price of cotton to a much lower figure than now prevails. Mr. Yeary clearly demonstrates that cheap cotton can only be produced by eliminating labor costs—by a system of family serfdom, in which a farmer's help is made up of his children, who get nothing in return for their labor beyond a mere existence. The business man's test of a cost sheet is applied to refute the charge against the cotton farmer of extortion in present prices, and to demonstrate that an even higher price would be necessary to lift cotton farming on to a plane of legitimately profitable enterprise. Mr. Yeary invites discussion of the presentation he has made.—Editor Manufacturers Record.]

There are some people who still cling to the idea that it costs but little to produce cotton. Some have no idea how the cost of production has increased within the last 25 years. Some are hard to convince that the 1917 crop has been as expensive to make as it really has. One of the principal troubles is that cotton has never sold for more than enough to pay the farmer from 25 to 60 cents per day for his labor in producing it, while the public has thought he was receiving good wages. The fact is, the man making the crop has used his women and children as free labor, paying them only, and only able to pay them, their food and clothing, which has been the minimum to exist on and has really amounted to from 25 cents to about 60 cents per day when compared to a man's work. When the cost of production is shown, based upon the average wages of farm or other hired labor, it makes the cost so high that it staggers those who have not given the subject of cotton production close study. The question is, Is the farmer entitled to cost of production and a profit? and if so, When shall he begin to receive it?

I have kept a record of what it costs me to grow cotton. I cannot hire hands for less than current wages, nor do I care to beat them out of a part of their wages if I could, which I would have to do to continue in the business. The results are that I do not hire hands to grow cotton, but rent my land to the man who has no choice in the matter and must make his children work for an existence. What I am doing in this respect is nothing more than what is being practiced by the land-owning class of the South now, and what has been done for the past 50 years.

My efforts are to relieve this condition in the South. It should be the duty of all.

Having kept a record of cost of production and being acquainted with conditions over Texas and a good portion of the South, I know the Taft Ranch in South Texas can and does produce cotton cheaper than any other large section or individual producer I know of. I use their figures because of their business methods used in farming and their efficient system of reducing the cost to the minimum. They took Prof. C. H. Alvord from the Agricultural and Mechanical College as farm manager, whose ability has never been questioned, but always highly respected. They are a large corporation, which owned a large tract of land and developed it under a business system to sell the land improved and ready for the small farmer as a home. I have no disposition to try to be unfair in my work, privately or publicly, in this matter. It is of too much importance to the public to do so. I simply feel that the South should know her condition. I use their figures on the crop of 1912 and on one of their farms of 1080 acres that produced 650 bales of cotton that year. This was 300 pounds of lint per acre, which is far above the average of any cotton State. Their yield should indicate a business system and their figures ought to command the respect of fair, intelligent people. Their cost for 1912 is as follows:

	Per acre.
Labor for cultivation, picking, ginning, etc.	\$12.87
Feed for mules, in addition to that grown on the farm.	4.15
Supplies and repairs.	.68
Poison.	.74
Fertilizer (on small portion as experiment).	.15
Depreciation on stock and equipment.	.90
Seed for planting.	.20
Overhead expenses, taxes, supervision, etc.	1.50
Total.	\$22.19
(Others of their farms that year averaged \$21.48 and \$23. respectively.)	

It will be noted that there is nothing here for ginning, and that \$4.15 is not all of the feed bill, but the portion bought and fed, exclusive of the amount raised on the farm. These would necessarily amount to \$3 or \$4 per acre more. I wish to call special attention to the labor bill of \$12.87. They made about 1000 pounds of seed cotton per acre. The average price for picking in Texas that year and since then, until this year, has been about 75 cents, which would be \$7.50 per acre, leaving only \$5.37 for preparing the land, planting, chopping, cultivating, hauling to gin and marketing, which any practical farmer knows he could not touch. The fact is, the Taft people got their cotton picked for 40 cents per hundred. The hands for cultivation were paid \$1 per day. This is simply a sample of their efficiency in cheap production. All of their figures are far below the average of Texas, except the two small items of poison and fertilizer, which are not generally used in the West. They cultivate 50 acres of cotton to the hand, which is impossible over the State, or South. They cut stalks with a two-row cutter, plant with a two-row planter and cultivate with a two-row cultivator. There is not a short row, branch, wash or creek on the whole ranch. The rows are as long as they want them.

Under these conditions is it unreasonable to say that they can cultivate, gather and market a crop 25 per cent. cheaper than the average of Texas? I am sure they can, and then some, even if picking and other work was as high as it is in other sections. Then to be well in the bounds of reason, let's add only 81 cents to the feed bill, making the total expense per acre in round numbers \$23. Then increase this 25 per cent., or \$5.75, per acre for the average cost per acre for Texas. This gives us \$28.75. As these figures do not include anything for rent or interest on the investment, suppose we add \$5 per acre for this, making a total of \$33.75 per acre as the total cost for 1912, or before the present war, as the average cost for Texas, Oklahoma and Arkansas, or States not using fertilizer and using modern two-horse planters, cultivators, etc.

Of course, this cost would not apply to States that must use fertilizer and plant and cultivate with one-horse implements. Their cost is certainly higher. As I see it, I am using as a base the most scientific farm and the one showing cheapest production in the South of any magnitude. If we use \$33.75 as the average cost per acre, of course it will not be exactly correct where only one-third or one-fourth bale per acre is made, because their picking expense would be reduced. But this should not be considered seriously when we realize that

the Taft figures for picking are based on 40 cents per hundred, while the others are nearly twice as high, and I have only made a 25 per cent. increase. While no figures would be exact, the difference would be a trifle in the general results.

There is another item of cost of growing any kind of crop, as well as cotton, and that is the item of plant food taken from the soil by the crop. When we look over our community and look back 20 or 25 years, we can see an appreciable, if not an alarming, loss from this source.

Based upon \$33.75, we have the following table of cost of producing the crops from 1911 to 1915, inclusive. The acreage and the total value of both lint and seed is from the Federal Department of Agriculture; also the selling price per pound. The cost per pound and the total loss on each crop are based upon the above figures. The table also has the estimated figures for 1917 at 34, 30 and 26 cents per pound, and \$60 per ton for seed. The year 1916 is left out for lack of complete Government figures:

Year.	Acreage in cotton.* per acre.	Cost
1911.....	36,043,000	\$35.75
1912.....	34,283,000	33.75
1913.....	37,089,000	33.75
1914.....	36,832,000	33.75
1915.....	31,412,000	33.75

Estimated figures for 1917 at 34, 30 and 26 cents per pound and \$60 for seed.

Year.	Acreage in cotton.* per acre.	Cost
1917.....	34,600,000	62.50
1917.....	34,600,000	62.50
1917.....	34,600,000	62.50

\*Figures of United States Department of Agriculture.

I estimate the expense of producing cotton in 1917, compared to 1912, has doubled in everything except the interest on the investment; hence I have doubled the item, \$28.75, the expense, and added the same interest, \$5, to it, making the acreage expense for 1917, \$62.50. The hired labor bill in cultivation was not double during cultivation season, but it did during the gathering season. Feed and food were three times as high, and as the great masses of farmers depend upon the labor of their own families and only pay them their food and clothing as their wages, their wages or expense has more than doubled. Gasoline for tractors is three times as high, also harness, while the farmers' taxes and other expense has kept pace with that of the merchant or banker.

The Government gives the acreage at 34,600,000, the yield at 10,949,000 bales. Estimating the seed at 900 pounds to the bale and their value at \$60 per ton and the lint at 34 cents per pound, the total value of the crop is \$2,163,750,000; the total cost is \$2,162,500,000, which would show to be about the cost of the crop. At 30 cents for the lint and \$60 per ton for the seed, it shows a loss of \$218,527,000. At 26 cents for the lint and \$60 per ton for the seed, about what I estimate that the producer will receive, shows a loss of \$438,307,000.

These figures on the advance in cost are estimates based upon the best information obtainable, and may not be exactly correct, but they are not far wrong, and are designed to show to the public a farm condition that has existed for many years, the fundamental cause for the poor rural conditions that are worrying so many people, societies and organizations. They should serve a good purpose to the student of economics, to State and National officials and statesmen, as well as farmers.

Cotton can be sold for its value whenever men in control of State or National affairs decide it should be and make investigations, or whenever the producers and their allies, the bankers and merchants, decide it should be done.

The Department of Agriculture of Texas, realizing what might happen to prices at any time and under any condition, started a movement at the State Farmers' Institute meeting in July to be ready for any emergency. The Commissioner of Agriculture appointed a pricing committee to make investigations of the cost of producing the 1917 crop, what the spinner could afford to pay, and a minimum price the crop ought to bring. The report, which was made August 15, was that the crop would cost more than 30 cents per pound and would not be sufficient to supply the demand and the spinner could well afford to pay from 40 to 45 cents per pound without a further advance in prices of cotton cloth. Consequently, the committee advised farmers to hold for 30 cents minimum for the lint and \$60 a ton for the seed. Some criticism was made of the report, but time has

amply proven its correctness. The cotton States have jointly taken steps to be heard at the price-making counter in the future.

Friendly criticism of this article is invited, and to show it is friendly a copy of such criticism is requested, that it may be answered or explained.

### Some of the Difficulties of Regulating Cotton.

By CHARLES A. WHITTLE, Atlanta, Ga.

Some of those who are crying "Fix the price of cotton!" frankly say that they want the price fixed at 18 or 20 cents. In their effort to justify these figures they hold that when cotton sells at such figures it will yield a return equivalent to wheat, on which the price has been fixed.

The cost of producing cotton now is quite another matter from that which was accepted for previous years. Let us array some of the leading reasons why

Cost of producing entire crop in South.	What lint and seed sold for.*	Total loss on crop.	Cost per lb. Cents.	Sold for per lb. Cents.
\$1,216,518,750	\$869,600,000	\$346,828,750	15.5 .096	
1,157,061,250	904,130,000	252,921,250	17.0 11.5	
1,251,753,750	1,026,700,000	225,063,750	17.7 12.5	
1,243,080,000	720,080,000	523,000,000	15.4 7.3	
1,080,156,000	756,840,000	264,315,000	15.9 11.2	
				Seed.
1917.....	2,162,500,000	2,163,753,000	34 .00	
1917.....	2,162,500,000	1,943,973,000	30 .00	
1917.....	2,162,500,000	1,724,193,000	26 .00	
	†Galn.	‡Loss.		

it requires much more to produce cotton today than formerly:

1. Increased cost of seed.
2. Increased cost of applied plant food.
3. Increased cost of labor in cultivating and picking.
4. Increased cost of ginning, bagging and ties.
5. Increased amount of labor necessary to fight the weevil and grow a crop.
6. Increased cost of storage.
7. Decreased yields due to the boll-weevil.
8. Decreased yields because of rust incident to potash shortage.
9. Depreciation in value of cotton due to inability to pick and handle promptly and properly because of labor shortage.
10. Decreased efficiency of labor because better wages for the negro means less labor from the negro.

Of course, some of these items find counterbalance in the production of wheat. In the matter of labor cotton suffers greatest because more labor is required in growing cotton than wheat; not only more laborers, but employment for a greater period at more different kinds of work.

No crop is so handicapped by any pest as is cotton with the boll-weevil. Losses of from one-fourth to one-half of the crop are not uncommon, a fact that is true not of one section of the cotton belt, but of practically the whole of it. So unprofitable have some of the farmers of Alabama and Mississippi found cotton growing in the presence of the boll-weevil that the high prices of the past two years have not tempted them to again grow the crop. It is hard to say what price would tempt to return to it.

To get a crop of cotton in spite of the boll-weevil requires considerable outlay for picking weevils and infected squares, an item of expense which did not formerly belong to growing cotton. But this picking does not save loss; it merely lessens it, so that the weevil-picking cost and the loss of a portion of the crop in spite of all effort constitute an offset in the profits of growing cotton of no small measure.

No field crop responds more readily to fertilizers than cotton, and none suffers more greatly in the absence of a sufficient amount of some element or elements of plant food. A shortage of potash is unquestionably being severely felt, evidenced by rust losses. It will increase as the residue of former applications of potash become exhausted. Potash is to be had, but it is quite expensive. But in spite of the expense the farmer is going to use it this year and pay the price because he believes it will pay him to use it along with the nitrogen and phosphoric acid of his complete fertilizers. Of course, all elements of plant food are higher, and complete plant food will cost considerably more than normally.

No form of bagging has increased as has jute. Ties

are far more expensive. In fact, not only is there more labor required at every step in the production of cotton than wheat, but there are more steps to be taken in growing and marketing cotton than wheat, each one of which has its increased cost. If it were true that if all the corresponding steps of growing wheat and cotton have a corresponding increase in cost, there would remain several items of increase remaining to cotton that do not belong to wheat. In other words, the increased cost of producing cotton is greater than the increased cost of producing wheat.

Cotton is confronted with labor difficulties that are peculiar to the negro race, at least they are accentuated in it—and that is the better wages paid for negro labor the less number of days the negro will work. His wants become satisfied before he has supplied the demand for his labor.

Under the greater burden of a labor shortage, facing a most destructive and certain enemy, the boll-weevil, and another formidable enemy, cotton rust, and with all the increase of cost at every step in growing and marketing cotton and the difficulties peculiar to cotton, who can justify himself in dismissing the whole question with "There has been a certain increase allowed wheat over normal prices; give cotton the same."

How much the cotton farmer gets for his cotton is not so important as to get a crop of cotton commensurate with the needs of the world. That task is tremendous.

### Big Explosives Factory Planned.

Large purchases of land near Charleston, W. Va., by the Government have been followed by announcements of a big explosives factory to be built there. The War Department will build this plant and equip it for the manufacture of powder and other explosives, the cost being reported as \$9,000,000. The site comprises 1500 acres at Lock Seven (or Crawford City) on the north side of the Kanawha River, near St. Albans, W. Va. The Government will complete and operate the first unit, costing several million dollars, and then add other units for an ultimate output said to be 50,000 pounds in 24 hours. From 20,000 to 30,000 men will be employed in and around the completed plant.

Barracks and accompanying buildings for employees will be constructed on the down-river portion of the site, on the plan of army cantonments. Probably natural gas will be decided upon for heating purposes, as big mains now extend through the site, but steam is being considered. All construction is under the direction of the Cantonment Division of the War Department, and the Thompson-Starrett Co. of New York is the contractor. Daniel C. Jackling of San Francisco, with offices in New York, was mentioned recently as having been engaged by the Government to have general charge of the \$90,000,000 expenditure for explosives factories, storage plants, etc., required in connection with the war.

### Plans Distillation of Alcohol from Cactus.

Louisville, Ky., January 3—[Special]—Tom Hines of Hines & Ritchey, coppersmiths and machinery manufacturers of Louisville, after research work at the instance of a group of Southwestern capitalists relative to developing a plan for distilling alcohol from cactus, reports the plan as practical. He points to the fact that the Mexicans with the crudest sort of stills have been manufacturing beverage liquors from certain forms of cactus for years.

With corn selling at over \$1.50 a bushel and in big demand for feeding the country and the allies, distilling alcohol from cactus could be undertaken today even at a higher cost than that formerly maintained by manufacturers using grain. The supply of cactus in the Southwest is inexhaustible, and could be procured at a very low cost. On the other hand, cactus is a quick-growing form of vegetation that under cultivation would renew itself in the course of about eight months, and can be grown on land that would not support anything else.

Mr. Hines is of the opinion that there is a great future in cactus development for alcohol manufacturing, alcohol being one of materials which must be produced for manufacturing munitions and for other Government purposes.

### Industrial Activities in the South in 1917.

As an evidence of continued activities along usual lines of industrial and financial interests and other developments, the MANUFACTURERS RECORD calls attention to the publication during 1917, by its Construction Department, of about 50,000 statements relative to all phases of industrial and building operations in the South and Southwest.

While the number of these statements is not so large as in the several years immediately preceding, and progress along some very important lines of industries is undoubtedly necessarily lessened on account of the placing elsewhere of capital and the personal engagement of such a large number of Southern people in the direct service of our country and the allied cause, yet it is satisfactory to note that in all departments of these varied interests there has been some progress, and that many new enterprises have been established.

Previous to July, airplane interests were included under another heading, but since that date the Construction Department's columns in the Daily Bulletin and the MANUFACTURERS RECORD have recorded 26 items relative to the establishment and operation in the South of a number of those airplane plants and stations which have become so vitally important; equally necessary coal-mining operations have been noted in 1596 items, many of these being new developments, others resumed or greatly enlarged in output; 1748 items were devoted to gas and oil production, these including the showing of greatly increased activity in the oil fields of Kentucky.

Road and bridge construction for the year has been followed in 2293 items on roads and streets and 495 on bridges; electric plants 752, and hydro-electric 77 items; 451 notices were made of textile mills; drainage systems, 205; 803 items devoted to lumber and 420 to woodworking plants; municipal construction included 577 sewer and 743 water-works items; miscellaneous factories, 1741, with many others along the lines of flour, canning and packing, clayworking, cottonseed oil, ice and fertilizer plants, cotton gins, foundries, motor interests, etc., and the various installations and rehabilitations at Southern points of large and small shipbuilding plants for building vessels of steel and wood construction. The shipbuilding plants, which were noted under Miscellaneous Factories until May, since then have been described in 291 of these concise statements.

That lumber and other building materials are yet obtainable in Southern sections for ordinary uses is evidenced by the number of buildings noted as planned and contracted for. Of course, in these, as in all statements made by the Construction Department, sometimes two, three or even more items are furnished to our readers regarding the enterprises, as from time to time correspondence and other methods bring to our notice further additional facts.

Even during this war year we were able to give space to 3910 items relative to erection of dwellings and 843 to apartment-houses; Government and State buildings, which in these days include cantonments and various army service structures, 631; schools, 2609 items; warehouses, 526, and bank and office buildings, 815 items; churches, 1108; stores, 1903, with hundreds more given to description of municipal and county buildings, hospitals, hotels, theaters, railway stations, etc.

Railway construction was noted in 856 items, including 83 on street railways, and in this connection, as has been elsewhere stated by the MANUFACTURERS RECORD, indications now point to a campaign of railroad building into new and undeveloped coal fields.

In financial matters, corporations were referred to 989 items, while 4080 dealt with suggestions and announcements regarding new securities.

Fire damage statements numbering 2388 have had their chief interest centering in the facts of plans, labor, materials and machinery being needed for rebuildings and re-equips.

The Machinery, Proposals and Supplies Wanted list continues to furnish specific requests for data and prices on all kinds of machinery, bids on contracts, estimates on materials, etc., these coming to us mainly from the Southern States, but also from other portions of this country, while still quite a number are from subscribers and readers in foreign countries. The number of these requests for the year was 6396.

The accompanying table summarizes the items for the year, under their proper headings, and also gives the number for December. Items for the preceding 11

months were previously detailed in monthly statements.

The table follows:

	Total for year.
<i>Industrial and Developmental.</i>	
Airplane Plants, Stations, etc.....	7
Bridges, Culverts, Viaducts.....	22
Canning and Packing Plants.....	6
Clayworking Plants.....	4
Coal Mines and Coke Ovens.....	117
Concrete and Cement Plants.....	37
Cotton Compresses and Gins.....	11
Cottonseed-Oil Mills.....	7
Drainage Systems.....	8
Electric Plants.....	53
Fertilizer Factories.....	3
Flour, Feed and Meal Mills.....	21
Foundry and Machine Plants.....	35
Gas and Oil Enterprises.....	108
Hydro-Electric Plants.....	4
Ice and Cold-Storage Plants.....	22
Iron and Steel Plants.....	5
Irrigation Systems.....	1
Land Developments.....	23
Lumber Manufacturing.....	39
Metal-Working Plants.....	3
Mining.....	102
Miscellaneous Construction.....	24
Miscellaneous Enterprises.....	72
Miscellaneous Factories.....	104
Motor Cars, Garages, Tires, etc.....	76
Railway Shops, Terminals, Roundhouses, etc.....	8
Road and Street Work.....	127
Sewer Construction.....	14
Shipbuilding Plants.....	19
Telephone Systems.....	8
Textile Mills.....	42
Water-Works.....	43
Woodworking Plants.....	36
<i>Buildings.</i>	
Apartment-Houses.....	46
Association and Fraternal.....	49
Bank and Office.....	51
Churches.....	54
City and County.....	37
Courthouses.....	9
Dwellings.....	233
Government and State.....	58
Hospitals, Sanitariums, etc.....	21
Hotels.....	39
Miscellaneous.....	32
Railway Stations, Sheds, etc.....	17
Schools.....	99
Stores.....	106
Theaters.....	14
Warehouses.....	25
<i>Railroad Construction.</i>	
Railways.....	37
Street Railways.....	5
<i>Financial.</i>	
Corporations.....	68
New Securities.....	193
	<hr/>
Fire Damage, etc.....	2,369
Machinery, Proposals and Supplies Wanted.....	267
	<hr/>
Totals.....	3,031
	49,179

### Savings Bank Reports.

The annual report of the Savings Bank of Baltimore shows that it opened 6594 Liberty loan accounts during the past year, of which 642 were closed, leaving 5952 of these accounts still active on December 31, 1917. These regular accounts totaled on the same date \$3,001, a decrease of \$69 as compared with the same date one year ago. Funds on hand are \$38,607,727, a decrease of \$373,311. The deposits for the year totaled \$7,910,056, and from Liberty loan subscribers \$268,742. Interest and dividends received on stocks, bonds, loans, etc., aggregated \$1,900,046. The assets of the banks (which are the same as the funds on hand, viz., \$38,607,727) include bonds and stocks owned, \$32,812,111; loans on mortgages, \$2,559,983; cash on hand and in banks, \$2,878,132, and real estate, including the bank building. Wm. H. Conkling is president and Frederick A. Hoffman, treasurer.

The Eutaw Savings Bank of Baltimore in its annual report shows that it opened 11,837 Liberty loan installation accounts during the past year, and that the total number of regular accounts open on December 31, 1917, was 44,116, a decrease of 632 as compared with the same date one year ago. Funds on hand are \$29,238,050; decrease, \$295,180. Deposits for the year totaled \$7,956,283. Interest and dividends received on bonds, stocks, etc., was \$1,426,607. The bank's assets (\$29,238,050) include bonds and stocks owned, \$19,576,380; loans on mortgages, \$6,331,754; cash on hand and in banks, \$3,077,614, and real estate, including the bank building. Wm. M. Hayden is president and Frank G. Evans, treasurer.

The Central Savings Bank of Baltimore has issued its annual report, showing that on December 31, 1917, it had 22,877 accounts open, an increase of 2152 as compared with the same date a year ago. Funds on hand are \$9,819,153, a decrease of \$402,746. Deposits for the year amounted to \$2,905,500, and interest and dividends received on bonds, stocks, loans, etc., was \$468,472. The assets of the bank (\$9,819,153) are composed of bonds and stocks owned, \$6,315,642; loans on mortgages, \$2,019,750; loans on collateral, \$291,177; cash

on hand and in banks, \$957,533, and real estate, including bank building, etc. Wilton Snowden is president and J. Wilson Cole, treasurer.

The Citizens' Savings Bank of Baltimore in its annual report shows that the funds on hand December 31, 1917, amounted to \$4,775,573, and that it received from depositors during the year a total of \$2,029,069. It also received as interest and dividends from securities owned \$261,428. The total assets of the bank, which are the same as the funds on hand (\$4,775,573), include bonds and stocks amounting to \$3,086,245; loans on collateral, \$274,035; loans on mortgages, \$996,740; cash on hand and in banks and trust companies, \$348,480, etc. There are 9044 active accounts, an increase of 787 as compared with a year ago. Amount due depositors is \$4,491,582; guarantee fund and undivided surplus, \$283,991. Charles Spilman is president and Wm. Spilman, treasurer.

The Hopkins Place Savings Bank of Baltimore in its annual report for the year ended December 31, 1917, shows an increase of 1986 in the number of accounts open, the total number being 28,052. The funds on hand amount to \$11,176,228. There was received from depositors during the year a total of \$4,371,440 and from interest and dividends on investments \$529,979. The total amount due depositors is \$10,645,950, and the undivided surplus, which is chargeable with three months' accrued interest on deposits, is \$530,278. The assets of the bank, which are the same as the funds on hand (\$11,176,228), consist of stock and bonds owned, \$5,924,549; loans on collateral, \$312,572; loans on mortgages, \$3,991,050; cash on hand and in banks, \$746,994, etc. The bank bought liberally of the two Liberty loans. Robert M. Rother is president, and John L. Hildebrandt, treasurer.

### Third and Greatest Gasser in Terrebonne Field

[Special Dispatch to Manufacturers Record.]

New Orleans, La., January 7.

The third gasser in the Terrebonne field came in Sunday unexpectedly, and is now running wild. This gasser is even greater than the first two, and is said to equal the output of the others. The drill was in when the underground pressure blew out and the derricks and other drilling material were wrecked. The officials of the Terrebonne Gas Co., in company with Dr. V. K. Irion of the New Orleans Public Utilities Board, visited the field and inspected the well and investigated the use of natural gas in a sugar refinery near the field.

This new gasser is over a half mile from the first two, and on the west bank of Terrebonne Bayou, thus extending the field westward.

### For 26,400 Electrical Horse-Power.

Construction is progressing upon the hydro-electric plant near Bridgewater, N. C., of the Western Power Co. W. S. Lee, vice-president and chief engineer, Charlotte, N. C.; F. H. Cothran, resident engineer. The reinforced concrete power-house will be equipped with machinery to include two turbines operating under a 140-foot head, and 26,400 horse-power will be developed. Three earth dams and two diversion channels will store water on three rivers for this water-power development. A. J. Twiggs & Sons of Savannah, Ga., are the contractors for the diversion channel, which is located between the Catawba River and Paddy Creek basins. The Hardaway Contracting Co., Columbus, Ga., is the general contractor for the construction required.

### To Build Motor Cars at Fort Worth.

Automobiles, trucks and tractors will be built at Fort Worth by the Texas Motor Car Association, and the annual production will be 5000 cars. The plant buildings will cost \$200,000, and are to be as follows: One-story, 500x100 feet; one-story, 300x80 feet; both of mill construction; three-story, 500x100 feet, of fireproof construction; administration building, 100x60 feet; to be erected under the company's supervision. M. C. Parker is the architect furnishing plans and specifications. This Fort Worth company has an authorized capital of \$2,000,000, and its officers are: J. C. Verner, president and manager; William Ginnuth, vice-president; C. F. Sanders, secretary.

### Additional Price-Fixing Announcements Made by Judge Gary.

Further price-fixing announcements have been made by Judge E. H. Gary, chairman of the Committee on Steel and Steel Products of the American Iron and Steel Institute, supplemental to similar announcements heretofore made under date of November 13, November 20 and December 22. Present announcements cover pig-iron differentials on special car wheel or cylinder iron, maximums on iron rolls, base prices and extras on tool steel and on carbon steel.

These and other prices heretofore established by Government approval are to continue into effect until March 31, 1918.

### Steel Output Restricted—Traffic Conditions Hamper Production.

New York, January 7—[Special.]—Iron and steel production continued at a reduced rate during the past week. There was no relief from the shortage of coke and coal at the blast furnaces in the Central West, nor are there prospects of any relief from the situation in the immediate future. The iron and steel markets were, therefore, practically stagnant. Speculations against contracts were light, and there was no buying of consequence except by the Government.

By formal announcement of President Wilson, the fixed prices for iron and steel products are continued for three months, or to March 31, 1918. Predictions were common in the trade throughout the week that by this or that means prices will be different after that date. The annulment of such contracts as interfere seriously with the effectiveness of the voluntary price agreement now in effect would, however, probably occur.

It is a well-known fact in the trade that a number of plate mills are seeking orders at the fixed price of 3½ cents a pound, although they are very particular as to the character of specifications they accept, only those conducting to maximum tonnage output being regarded favorably. The fancy priced business booked from five to eight months ago has now been largely worked off, while the embargo against plate exports to Japan has also been a factor.

Lack of fuel caused the shutting down during the week of the Cleveland plants of the American Steel & Wire Co. Trouble was also reported at its Pittsburgh plant.

The United States Government placed numerous orders during the week with manufacturers for war munitions of various kinds, and the latter, in turn, were in the market for wire, including both round and flat, screw stock, and other specialties made by the wire mills. Federal authorities also distributed 600 to 800 tons of screw stock, about 300 tons of which are to be furnished by the American Steel & Wire Co. A large tonnage will also come to the Union Wire Co. Most of this kind of steel is going to hardware manufacturers who recently took Government orders for grenades and other munitions. Liberal orders were also distributed for round wire and moderate tonnages of flat wire used in the manufacture of springs and various parts of shells, including time devices, springs and nose pieces.

Unless something unexpected occurs, pig-iron production will be smaller in the Central West in the next fortnight than in the preceding one. Less coke than ever is moving toward the furnaces.

Consumers were anxiously in the market last week for foundry malleable and steel-making grades. The only steel-making iron that was offered for early shipment was a limited tonnage of copper-bearing low phosphorus which was offered by Eastern Pennsylvania furnaces.

### Famine in Pig-Iron Later On Is Prediction Heard in Birmingham.

Birmingham, Ala., January 7—[Special.]—Inquiries for pig-iron are numerous with the Southern producers and some few sales are still being booked. Some of the companies announce the probable make for practically the first half of the year sold up, while others are selling into the second quarter smartly. Every mail brings in some inquiry for pig-iron, and the belief is strong

here that there will be need for all the iron that can be produced; in fact, in some quarters predictions are already to be heard that the shortage of iron this year will develop into nothing less than a famine a little later on. Production of pig-iron in the Southern territory is being held up well, though it is a difficult proposition.

Coke production is still above normal, but it is taking work to do it, and with priority orders for coal being closely enforced there is likelihood that the coke make may be disturbed before long. Two furnaces are to be blown in during this month, and the Trussville furnace should be in operation by middle February at least. The new coal mines of the Birmingham-Trussville Iron Company are producing upwards of 100 tons of coal daily, but it will be a few weeks yet before the 1400-ton coal washer will be ready. The 300 coke ovens of the company at the furnace plant are in condition and await the delivery of coal.

Delivery of pig-iron has not improved any of late, though there is a hopeful view still taken that Government control of the railroads will bring about some relief before long. Some increase in accumulated stock of iron was noted here during the past two weeks, but this does not in the least interfere with the general market conditions.

The scrap iron and steel market in the South is more active and there are some sales being made right along. A slight change in the quotations is noted, while all figures are looking upwards. The car situation in the old material market does not show any improvement, and the dealers are still finding it difficult to bring in the country scrap and to make deliveries to other centers. The pig-iron market conditions are having effect on the old material market, and the revision problem is heard of by the scrap dealers.

Following quotations on pig-iron and scrap iron and steel are given in the South:

#### PIG-IRON.

No. 2 foundry.....	\$33.00
(Same differentials on other grades as existed before Government schedule was announced, with \$33 for charcoal iron.)	

#### OLD MATERIAL.

Old steel axles.....	\$32.00 to \$33.00
Old steel rails.....	28.00 to 30.00
Heavy melting steel.....	23.00 to 24.00
No. 1 wrought.....	30.00 to 35.00
No. 1 cast.....	25.00 to 27.50
Stove plate.....	19.50 to 21.50
Old car wheels.....	25.00 to 30.00
Truckar wheels.....	20.00 to 25.00
Machine-shop turnings.....	17.00 to 18.00
Cast-iron borings.....	13.00 to 15.00

### Old Alabama Furnace to Be Taken to Bombay.

Birmingham, Ala., January 5—[Special.]—The Crawford-Vaughan Boiler and Locomotive Works of Birmingham announce the dismantling of the old Battelle furnace and appurtenances of the Lookout Mountain Coal & Iron Co., in the northern part of the State, completely removed and delivered at a Southern port for shipment to the Tata Iron & Steel Co. of Bombay, India, the furnace to be re-erected in India. Ninety per cent. of the fire brick of the furnace was saved. Two hundred and fifty railroad cars were required in hauling the old furnace and appurtenances from Battelle to the Southern port. Two hundred and fifty men were kept at work on an average in dismantling the furnace, and 60 working days were necessary in accomplishing the job.

### For Extensive Lumber Industry.

Detailed plans have been determined for an extensive lumber industry to be established at a cost of \$250,000 by the Elkmont Lumber Co. of Cooks, near Montgomery, Ala. This organization has been formed with the following officers: President, E. S. Deal; secretary-treasurer, W. W. Deal; both of Buhl, Ala.; vice-president and general manager, U. M. Bachtel of Chattanooga, Tenn.

Ten thousand acres of timber land will be developed, and a six-mile railroad, including a two-span steel trestle across the Tallapoosa River, has been built, with additional mileage planned, to provide transportation facilities. The manufacturing plant will have a daily capacity of 75,000 feet of lumber, and will include a sawmill, a planing mill and a drykiln.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### INTERURBAN TERMINAL AUTHORIZED.

Kansas City Common Council Finally Passes Ordinance Over Mayor's Veto.

A special dispatch from Kansas City, Mo., to the MANUFACTURERS RECORD says that the upper house of the Common Council has passed over the Mayor's veto the ordinance authorizing the construction of an interurban railway passenger terminal at 10th and McGee streets, which was previously passed by the lower house.

"This," continues the telegram, "assures Kansas City the big union terminal which the Interurban Central Station Co. has been asking permission to build for more than three years."

Howard E. Huselton, Waldheim Building, Kansas City, and others are associated in the plans for the establishment of this large city terminal to accommodate electric interurban railway traffic.

### BIG PASSENGER TRAINS CUT OFF.

#### Freight Traffic Will Accordingly Move Faster on Important Railroads.

As a result of the extraordinary pressure of freight traffic upon the railroads, especially on the East and West trunk lines, the Pennsylvania and the Baltimore & Ohio systems have made important reductions in the number of passenger trains operated, the Pennsylvania particularly making heavy cuts in its service. These latest changes went into effect on Sunday last. On the Pennsylvania they meant the withdrawal of 104 weekday trains and 51 Sunday trains. Many of these were trains performing comparatively unimportant local service, but some of them were big trains, one of them, the Congressional Limited, a parlor-car train that has been continuously operated between New York and Washington in both directions for 32 years. Other important trains discontinued include some new through expresses established not long ago when the new route between New York and Boston was opened via the Hell Gate Bridge.

In the New York and Washington service the Pennsylvania and the Baltimore & Ohio systems have agreed to co-operate and to run trains on alternate hours to a certain degree, although most of the trains between those cities are run over the Pennsylvania route. Thus some Pennsylvanian trains were dropped where they left either terminal at hours when some of the Baltimore & Ohio trains departed, although the last-named system also discontinued some of its big trains, particularly two expresses and four of its Chicago-New York trains, these latter being put on new schedules so that they arrive and depart from Baltimore.

By this arrangement of schedules these two systems will take care of the very heavy regular passenger traffic between New York, Philadelphia, Baltimore and Washington, and at the same time relieve the general traffic situation by making more room on their tracks for the movement of freight trains.

It is especially to be noted that the running of sleeping cars on day-time trains is stopped, and also that only one parlor car is attached to any passenger train. Therefore, passenger travel generally will be much less comfortable for the passengers who expect the best accommodations, but it will all be moved with at least reasonable promptness.

The Norfolk & Western Railway has also announced some important changes in passenger train schedules and also in Pullman service as a consequence of the war conditions. Other railroads are likewise affected in greater or less degree, according to conditions prevailing upon them.

Besides the war, railroads operating between the South and the cities along the Northern Atlantic seaboard have also been very adversely affected by the recent severe cold weather. Practically all traffic on the Chesapeake Bay was similarly stopped, owing to the heavy ice prevailing all the way from Baltimore to Nor-

folk. This blocked the ferry service of the New York Philadelphia & Norfolk Railroad between Cape Charles, Old Point Comfort and Norfolk, and it also stopped the daily steamer service between Baltimore and Norfolk, as well as all ocean steamer movements in the bay for the time being.

### Manatee River Railway.

W. B. Wilson of Tampa, Fla.; Charles T. Curry and L. A. Morris of Bradenton, Fla., propose to build a connection with the East & West Coast Railroad about two miles west of Verona, in Manatee county, Florida, railroad known as the Manatee River Railway from a northward to the boundary of Hillsborough county, about 20 miles, although it is expected that the road will be continued about five miles further to connect with the Seaboard Air Line at Wimauma. Application will be made for a charter, the company to have \$50,000 capital stock. Mr. Wilson holds practically all of the shares. It is stated that the route is through a good timber and farming country.

### Fredericksburg & Northern.

The Fredericksburg & Northern Railway Co. has been chartered to take over and operate the line of the Fredericksburg & Northern Railroad, 24 miles long from Fredericksburg to Fredericksburg Junction, Tex., which was recently disposed of at receiver's sale. The capital stock is \$25,000, and the offices are at Fredericksburg. R. R. Russell, J. L. Browne, L. H. Browne, W. W. Collier, Cyrus B. Lucas, J. W. Dobie and others are the incorporators.

### B. & O. Publicity Department.

The Baltimore & Ohio Railroad Co. announces that for the present the position of publicity representative, which was made vacant by the resignation of J. H. Baumgartner, will not be filled. Until further notice all matters relating to the publicity department will be handled by F. X. Milholland, chief clerk in the office of Vice-President George M. Shriner.

### Factory Site on Tidewater.

A large waterfront property at Mobile, Ala., is in the market for development. The owners say that its situation is ideal for either shipbuilding, marine engine building, sugar refining, cordage manufacture, or the manufacture of agricultural implements for export trade. The land has a frontage of 2200 feet on Mobile Bay, and about 100 acres of it is high ground, with perfect drainage, as it has an elevation of about 20 feet above mean low tide. About 50 acres in front is tidal land which could be reclaimed at low cost. The remaining land would be divided and sold for small factories and dwellings, and assistance in financing would be extended to responsible people who would take up the big factory end of the proposition. All city facilities are available at the site. H. A. Stone & Co., Widener Building, Philadelphia, Pa., may be addressed.

### Jobbers' Overall Co.

About \$70,000 will be the cost of the 186x63-foot reinforced concrete and steel building addition which the Jobbers' Overall Co., Lynchburg, Va., is erecting. \$60,000 will be the cost of the machinery and \$25,000 will be invested for the 125 horse-power electric plant, with accompanying equipment. C. W. Whitmore has contract to supply all the electrical machinery. C. W. Hancock & Son are the building contractors and Heard & Cardwell are the architects, all of Lynchburg. About 450 operatives are employed, and this number will be increased to 1200 by July, while the daily capacity of 600 dozen overalls will be increased to 1500 by the enlargement noted.

U. S. Commerce Reports state that high prices have led owners of British plants diverted to munitions manufacturing to sell former equipment as scrap metal, and indicates a heavy after-war demand for machinery.

## Good Roads and Streets

### Bonds Voted.

Fairfield, Tex.—Freestone county voted \$75,000 bonds for constructing 25 miles of hard-surfaced roads.

Fairfield, Tex.—Freestone county voted \$150,000 bonds for building roads.

Franklin, Tex.—Robertson county voted \$75,000 bonds for road construction.

Wharton, Tex.—Wharton county voted \$60,000 bonds for road construction.

### Bonds to Be Voted.

Clearwater, Fla.—City votes February 7 on \$29,250 bonds for street improvements.

Orange, Tex.—City votes January 22 on \$25,000 bonds for street improvements.

St. Joseph, Mo.—Buchanan county votes January 24 on \$2,000,000 bonds for highway construction.

### Contracts Awarded.

Oklmulgee, Okla.—Oklmulgee county awarded contracts for 50 miles of bituminous paving on macadam base and for 118 miles of grading with necessary culverts, an \$800,000 bond issue being available for these improvements.

Rogersville, Tenn.—Hawkins county awarded \$7250 contract for constructing six-mile highway.

Stanberry, Mo.—City awarded \$200,000 contract for five blocks of brick paving with asphaltic filler.

Staunton, Va.—Augusta county awarded contract for building 6-mile 12-foot water-bound macadam highway, \$40,000 being available for this improvement.

Tulsa, Okla.—City awarded \$325,000 contract for constructing asphaltic pavements on concrete base.

### Contracts to Be Awarded.

Decatur, Ala.—Morgan county will construct 13 miles of roads, costing \$24,000.

Key West, Fla.—Monroe county invites bids until January 31 for constructing 40 miles of highway.

Pocahontas, Ark.—Randolph county has plans and specifications for constructing 10 miles of macadam roads to cost \$61,000.

Russellville, Ark.—Pope county will grade roads at a cost of \$40,000.

Vernon, Tex.—Wilbarger county will construct 8-mile concrete highway, \$150,000 to be available for expenditure.

### Planning Program for Road Builders' Meeting.

The program committee of the American Road Builders' Association is developing a series of papers and addresses to be made before the Eighth American Good Roads Congress, to be held in St. Louis February 4-7. The complete list of speakers will be announced later, but the following subjects have been tentatively selected.

"A Study of the Relative Efficiency of Motor Trucks as Affected by the Length of Haul."

"The Value of Improved Roads for Motor-Truck Transportation as Auxiliary to the Railroads."

"Necessity for Uniformity in Motor-Truck Legislation."

"Roads in the Hudson River District with Unusual Construction Features."

"The Necessity for the Immediate Development of Commercial Roads that Are of Military and Strategic Advantage."

"Surety Bonds for Highway Purposes."

"A State Highway Department as a Contractor."

"Massachusetts Scheme for Contractors."

"New Features in Design and Construction of Earth, Sand-Clay, Gravel and Water-bound Macadam Roads and Pavements."

"New Features in Design and Construction of Bituminous Roads and Treatments, and Cement-Concrete Roads and Pavements."

"New Features in Brick, Wood-Block and Stone-Block Pavements."

"New Features in the Maintenance, Reconstruction and Repair of Earth, Sand-Clay, Gravel and Water-bound Macadam and Bituminous Roads, Penetration Method."

"New Features in the Maintenance, Reconstruction and Repair of Bituminous Roads, Mixed Method; Cement-Concrete, Wood-Block, Brick and Stone-Block Pavements."

"How to Lay Out and Justify a War Program for the Building of Roads."

### Ex-Governor Tener Becomes President of Permanent Highways Corporation.

Announcement has recently been made that John K. Tener, president of the National Baseball League and a former Governor of Pennsylvania, has become president of the Permanent Highways Corporation, 50 E. 42d street, New York city. This corporation has acquired the rights covering a special system of road construction, and it is planning to actively push its business in every part of the country.

### 168 Miles of Oklahoma Roads.

Contracts have been awarded for road construction in Okmulgee county, Oklahoma, in connection with the \$800,000 bond issue recently voted. These contracts provide for 50 miles of asphaltic paving on macadam foundation and 118 miles of grading with the necessary culverts. Plans and specifications have been prepared by Harrington, Howard & Ash, consulting engineers, Kansas City, Mo.

### 168 Miles of Highway.

Contracts have been awarded for 168 miles of highway in Muskogee county, Oklahoma. They include the construction of 50 miles of bituminous paving on macadam base, and for 118 miles of grading with the necessary culverts. An \$800,000 bond issue is available to furnish the money for these road improvements.

### \$325,000 Asphaltic Paving Contract.

Asphaltic pavements to cost \$325,000 will be constructed at Tulsa, Okla., the contract having been awarded. Plans and specifications for this improvement were completed recently and proposals were invited.

### Improvement Noted in Coal Production.

The weekly report of the Department of the Interior, United States Geological Survey, on the production of bituminous coal states that in the five working days of Christmas week the soft-coal mines produced 8,964,000 net tons, an average per working day of 1,793,000 tons. The recovery from the extraordinary depression of mid-December continues, but the rate of production has not yet attained the mark set in November. The increase was effected in spite of continued adverse weather conditions.

A preliminary estimate places the December production at 42,050,000 tons, the lowest recorded since April, 1917. On this basis the entire 1917 production should be approximately 544,142,000 tons, representing an increase over 1916 of 8.3 per cent.

The production of beehive coke, following the bituminous industry as a whole, rose from 96,086 net tons during the preceding week to 107,655 tons per working day.

Anthracite shipments were reported as 29,228 cars.

Reports from almost every district indicate some improvement over the extraordinary depression of the week of December 15. For the country as a whole losses due to all causes amounted to 31.9 per cent. of the full-time capacity, as compared with 42.3 per cent. during the preceding week. Improvement was reported in car supply, losses due to that factor declining from 30.8 to 24.8 per cent. Losses attributed to labor shortage and to mine disability returned to normal.

The production of Alabama was adversely affected by strikes and labor shortage. Losses due to these causes amounted to 9.1 per cent.

In the beehive coke industry in the Connellsburg and adjacent districts of Pennsylvania 46 operators reported a production of 233,485 net tons of coke, 63.9 per cent. of the capacity of their plants as rated by the railroads. The principal factors limiting production remain lack of coke cars and yard labor. The effect of the Christmas holidays is shown in the percentage of loss attributed to the latter cause, which rose from 9.5 per cent. during the week of December 22 to 15.1 per cent. in the week of December 29. The same operators shipped 98,100 net tons of coal, or 26.7 per cent. of their combined railroad rating as coal shippers.

## TEXTILES

### \$13,134,200 FOR SOUTHERN COTTON MILLS.

Total of 525,368 Spindles and 16,588 Looms Announced During 1917.

A total investment of \$13,134,200 is estimated as required for the installations of cotton spinning and weaving machinery decided upon during the entire year of 1917 by the manufacturers of the various classes of cotton goods produced throughout the Southern States. This amount includes plans for placing 525,368 spindles and 16,588 looms, the erection of buildings for new enterprises and of additional structures for established plants, together with the necessary engineering and architectural service. The MANUFACTURERS RECORD has detailed all the reports of the past 12 months, and from these has prepared some data and figures of interest. Comprised in the 1917 data are the announce-

ment, semi-annual on \$1,000,000; Union Bleaching & Finishing Co., 4 per cent. semi-annual; Brandon Mills, 3 per cent. semi-annual on \$1,000,000; Poinsett Mills, 3 per cent. semi-annual on \$500,000; Woodside Cotton Mills Co., 3½ per cent. semi-annual on guaranteed and preferred stock, 4 per cent. semi-annual on common stock, total dividends \$102,000; Mills Manufacturing Co., 5 per cent. semi-annual; Piedmont Manufacturing Co., 6 per cent. semi-annual; Pelzer Manufacturing Co., 4 per cent. semi-annual; Belton Cotton Mills, 4 per cent. semi-annual.

## MINING

### New Texas Sulphur Development.

Sulphur deposits in Culberson and Reeves counties, Texas, will be developed by the Standard Sulphur Co. of Detroit, Mich., organized with F. D. Phillips as sales manager. Outlining his company's plans, Mr. Phillips wires the MANUFACTURERS RECORD:

"Property located seven miles southwest of Orla, on Santa Fe Railway, 45 miles north of Pecos. Acreage, 4907; daily capacity initial unit of plant, 100 tons refined sulphur; estimated cost of this unit, including field equipment, \$75,000; force of men now removing overburden; opening large bodies of ore ready for treatment; engineers expect to have plant in operation in April."

Manager Phillips further writes: The property of the corporation consists of the mineral rights on nearly 5000 acres of land. Nearly 3000 acres show surface outcroppings of sulphur, and exploration indicates that the ore veins lie almost on the surface, the overload of earth being from one to five feet. A recent report on the property is by Paolo Fischer of Chicago. The daily output of the initial unit will be slightly over 100 tons, and the estimated cost of this unit, which includes total field equipment and providing for transportation of the refined sulphur from the mines to the warehouse at Orla, is \$75,000.

Officers as follows: A. F. Pudrith, president; Alfred Tinally, vice-president; Robert B. Swart, treasurer; G. F. Lathrop, secretary; Paolo Fischer, consulting engineer; all of Detroit.

Name.	Location.	Spindles.	Looms.
Couch Mills.....	Atlanta	5,000	108
*Jefferson Mills.....	Jefferson	5,000	256
Beverly Cotton Mills.....	Middleton	5,000	...
United States Government.....	Atlanta	...	500
		10,000	864
*Maginnis Cotton Mills.....	New Orleans	6,000	...
<b>North Carolina.</b>			
Advance Manufacturing Co.....	Fayetteville	...	20
E. M. Crow.....	Forest City	432	...
*Cross Cotton Mills Co.....	Marion	4,000	...
Highland Cotton Mill.....	High Point	5,000	109
*Necromont Mills.....	Cumberland	5,000	...
Liberty Spinning Co.....	Shelby	5,000	...
		19,432	120
<b>South Carolina.</b>			
W. D. Jenkins.....	Gaffney	...	40
*Conecnee Mills.....	Greenville	...	54
			94
Total for first quarter of 1917.....		161,512	4,382
Total for second quarter of 1917.....		322,684	10,524
Total for third quarter of 1917.....		5,740	604
Total for fourth quarter of 1917.....		35,432	1,078
		525,368	16,588

\*Established mills increasing.

ments of 16 new enterprises, with plans for installing equipment to include 406,904 spindles and 11,720 looms, which necessitate an expenditure of \$10,172,600, while 26 established companies arranged for adding 118,468 spindles and 4868 looms, the investment for these being estimated at \$2,961,600.

During October, November and December, the fourth quarter of 1917, the announcements of Southern mill installations call for 35,432 spindles and 1078 looms, an \$85,800 investment. These three months are divided as follows: 5432 spindles and 668 looms, a \$135,800 investment, for six new plants; 30,000 spindles and 410 looms, a \$750,000 investment, for seven enlarging mills. This three months' period, with the first and second quarters, was an unusual contrast to the third quarter of the year, when only 5740 spindles and 604 looms were announced for additions by two established enterprises, the cost being \$143,500, these being the only activities of July, August and September. For April, May and June the total was: Six new mills, with 315,184 spindles and 9202 looms, a \$7,879,600 investment; three mills adding 7506 spindles and 1322 looms, an \$187,500 investment; these total 322,684 spindles and 10,524 looms, an \$8,067,100 investment for nine mills. The first quarter was credited with four new mills having 86,288 spindles and 1850 looms, investing \$2,157,200; 14 established mills adding 75,224 spindles and 2532 looms, with \$1,880,600 invested; these total 161,512 spindles and 4382 looms, an \$4,037,800 investment for 18 enterprises.

### Southern Cotton Mill Dividends.

Prosperous conditions for Southern cotton mills are shown in dividends declared last week by mill companies of the Greenville (S. C.) district. These include: Victor-Monaghan Mills, first preferred, 3½ per cent. semi-annual; preferred, 3½ per cent. semi-annual; Judson Mills, 3 per cent. semi-annual on \$750,000; American Spinning Co., 5 per cent., payable January 1 on \$525,000, 10 per cent. dividend paid on same stock on December 15 last; F. W. Poe Manufacturing Co., 4 per

cent. semi-annual. J. T. Duncan is president-treasurer, R. L. Duncan is vice-president, and L. M. Duncan is secretary.

### For Manufacturing Absorbent Cotton.

Plans and specifications have been completed for the mill building of the Texas Textile Co. of Houston, and bids are invited until January 7. This will be a one-story 200x60-foot structure of reinforced concrete and hollow tile construction. It will be equipped with machinery for a daily capacity of 2000 pounds of absorbent cotton and 1000 pounds of artificial silk. The company's organization with \$250,000 capital and plans for this mill were noted recently, B. N. Garrett being president.

### Hemshaw Hosiery Mills.

Machinery has been ordered for the Hemshaw Hosiery Mills, Oxford, N. C., recently mentioned as to be established by Henry M. Shaw. It will cost \$10,000 and have a daily output of 240 dozen pairs of half-hose. A 78x40-foot brick building with concrete floors and side and sky lights will be occupied.

### Textile Notes.

The Arrow Manufacturing Co. has been organized with \$300,000 capital by J. H. Separk of Gastonia, N. C., and associates, who have purchased the Daniel Cotton Mills at Lincolnton, N. C.

The Adams Hosiery Mill, Taylorsville, N. C., has been organized with R. A. Adams as president and A. L. Adams as manager. This company has a plant of 30 knitters, two sewers, etc., for manufacturing women's hosiery, and plans to add new machinery.

A 90x60-foot and a 40x40-foot building, additional structures, are being erected by the National Hosiery Mills of New Orleans. Moise Goldstein is the architect. The company has 90 knitting machines and a daily capacity of 1000 dozen pairs of hose.

### North Carolina Bituminous Coal.

Officials of the Norfolk Southern Railroad are planning the development of bituminous coal land in Lee county, North Carolina, to furnish coal for their railway operations. The coal property is located on the Raleigh-Charlotte division of the Norfolk Southern.

For this mining enterprise the Piedmont-Cumnock Co. of Norfolk, Va., has been chartered with \$500,000 capital, and the officers are: J. H. Young, president; M. S. Hawkins, secretary; both of Norfolk; Marsden J. Perry, chairman of directors, Providence, R. I. These three hold the same offices with the Norfolk Southern.

### A Large and Prosperous Company.

The financial statement of the Mercantile Trust & Deposit Co. of Baltimore shows that the total resources of the institution, which was established in 1884, are now nearly \$22,000,000, the exact figures being \$21,951,294.89. The capital is \$1,500,000, surplus \$3,000,000, and undivided profits \$304,632, or a total of \$1,804,632. The deposits aggregate more than \$17,000,000. The loans total \$9,794,100, and the cash \$3,957,907. There is also Baltimore City stock amounting to \$2,404,214, and other stocks and bonds the market value of which is \$3,476,386, and short-term notes and bonds of a market value of \$2,003,242.

# Construction Department

## IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

### DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

### AIRPLANE PLANTS, STATIONS, ETC.

Fla., Arcadia.—Chas. Young of Young Airplane Co. of New York is reported as contemplating establishment of airplane plant and aviation school.

### BRIDGES, CULVERTS, VIADUCTS

Fla., Key West.—Monroe County Comr., D. Z. Filer, Clerk, will build 900-ft. timber trestle in connection with 40-mi. road construction; bids until Jan. 31. (See Machinery Wanted—Bridge; Road Construction.)

Ga., Savannah.—Central of Georgia Railway, C. K. Lawrence, Chief Engr., lately noted to construct drawbridge across Lazaretto Creek, advises Manufacturers Record: Removing old bridge for re-erection at this point; foundations are constructed; let pile driving contracts; no further contracts to be let.

Mo., Kansas City.—Board of Public Works rejected bids for construction of 23d Street traffic-way viaduct from connection with east end of Kansas Avenue bridge (which spans Kansas River) across West Bottoms to and connecting with west line of New Brook St. at intersection of 23d St.; invite new bids on cost and fee plan; plans call for 2 approaches, one from Wyoming St. and other from Frisco Yards; all of reinforced concrete and steel; main viaduct 1736 ft. long, with sidewalk, roadway and separate space for double street-car tracks; viaduct and approaches will require 19,000 cu. yds. concrete, 900 tons steel, 1900 tons reinforcing metal, 13,000 sq. yds. pavement; Harrington, Howard & Ash, Consult. Engrs., Kansas City. (Lately noted inviting bids.)

W. Va., Hamlin.—Lincoln County Court will ask bids, to be opened about Feb. 1, to construct superstructure of 330-ft. steel bridge; plans and specifications by State Road Com., Morgantown, W. Va. (See Machinery Wanted—Bridge Construction.)

W. Va., Romney.—Hampshire County Court, C. W. Haines, Clk., ask bids until Jan. 31 for 200-ft. bridge, of concrete or iron; plans and specifications at office of County Clk., or office of Engineering Dept., State Road Com., Morgantown, W. Va. (See Machinery Wanted—Bridge Construction.)

### CANNING AND PACKING PLANTS

Fla., Homestead.—C. W. Horn of Metropolitan Company, Chicago, contemplates establishing food dehydrating plants at Homestead and Miami, Fla.

Fla., Miami.—C. W. Horn of Metropolitan Company, Chicago, contemplates establishing food dehydrating plants at Miami and Homestead, Fla.

Md., Baltimore.—Corkran, Hill & Co. advise Manufacturers Record: Have plans by Gardner & Lindberg, Chicago, Ill., for erection of plant at 6th St., Union Stockyards, for beef and pork packing and manufacture of shortening; main building 214x80 ft., of reinforced concrete and brick, with concrete and brick floors; further description not ready for announcement.

### CLAYWORKING PLANTS

S. C., Bennettsville.—Bricks.—Bennettsville Brick Co., capital \$25,000, incptd. by Lincoln S. Morrison of Florence, S. C., and J. B. Morrison of Marlboro, S. C.

### COAL MINES AND COKE OVENS

Ala., Birmingham.—Eureka Coal Co. increased capital from \$25,000 to \$125,000.

Ala., Cordova.—Sulphur Spring Coal Co., capital \$300, incptd.

Ala., Sayreton.—Republic Iron & Steel Co., Birmingham, plans to build coal washer; concrete and steel; cost \$200,000; replace burned structure; daily production of coal mines 1500 tons. (Noted in December to rebuild.)

Ala., Sayreton.—Gulf States Steel Co., Birmingham, purchased Sloss-Sheffield Iron & Steel Co.'s Sayre mining property in Jefferson county, including 15,000 acres coal lands, mine and appurtenances, coke ovens, railroad, etc.; transaction involves about \$700,000; plans extensive additional development; mine has been producing 600 to 700 tons coal daily and 150 coke ovens about 200 tons coke daily.

Fla., Pensacola.—Pensacola Coal Co., capital \$10,000, incptd.; R. M. Cary, Prest.; A. C. Blount, V.-P.; John Massey, Secy.; C. L. Griffin, Treas.

Ky., East Bernstadt.—Liberty Bond Coal Co. organized; James Gayle, Prest.; R. Par-

ker, Mgr.; develop 75 acres; daily output 150 tons. (Lately noted incptd., capital \$15,000.)

Ky., Louisville.—Amburgy Coal Co., capital \$50,000, incptd. by K. U. McGuire, W. H. West and D. S. McLaren.

Ky., Mannington.—Memphis Coal Mining Co., 16 S. 2d St., Memphis, Tenn. (subsidiary of Memphis Gas & Electric Co.) organized; W. M. Flook, 54 Wall St., New York, Prest.; C. M. Stieg, V.-P.; J. F. Ramier, Secy.; G. S. Turner, Treas.; all of Memphis; develop 1100 acres; daily output 800 tons. (Memphis Gas & Electric Co., Memphis, lately noted as follows: Purchased properties of Petersburg Coal Mining Co. and Virginia Coal Co. near Mannington; include mining rights on 1100 acres; reported to use entire output of both mines and ship coal direct to Memphis.)

Ky., Whitesburg.—Smooth Creek Coal Co. (C. P. Price of Knoxville, Tenn., and others) increased capital from \$25,000 to \$150,000.

N. C., Lee County.—Piedmont-Cumming Co., capital \$500,000, incptd. with J. H. Young, Prest.; M. S. Hawkins, Secy.; both of Norfolk, Va.; develop bituminous coal mines in Lee County; both officials hold similar positions with Norfolk Southern R. R., building noted damaged by fire. (See Building Proposed—Stores.)

Okla., Henryetta.—Fretwell Coal Co., capital \$10,000, incptd. by R. R. Fretwell, J. E. Whitenton and R. B. F. Hummer.

Okla., Panama.—Stewart Coal & Mining Co., capital \$10,000, incptd. by Thos. Murphy of Panama, Pete Stewart, Jr. and Mrs. Lulu Stewart of Hartford, Ark.

Tenn., Chattanooga.—United States Fuel Corporation, Hamilton National Bank Bldg., organized; T. O. Busbee, Prest.; S. M. Chambliss, V.-P.; Jno. S. Wrinkle, Secy. (Lately noted incptd. with \$10,000 capital.)

Va., Roanoke.—Borderland Coal Corp., capital \$800,000, chartered; Jas. P. Woods, Prest.; E. B. Fishburn, Secy.

W. Va., Alderson.—Virginia Coal Land Co., capital \$12,000, incptd. by M. L. Jarret, E. Chase Bare, O. D. Massy and others.

W. Va., Adrian.—Adrian-Hampton Coal Co., Hendricks, W. Va., organized; J. E. Poling, Prest.; A. S. Lindsey, Secy.-Treas.; develop 90 acres. (See Machinery Wanted—Cars; Rail.)

W. Va., Huntington.—Oriole Coal Co., capital \$100,000, incptd. by A. J. King, E. S. Reeser, S. J. Hymand and others.

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January 10, 1918.]

## MANUFACTURERS RECORD.

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Mo., St. Louis.—Ammunition.—Wagner Electric Co., 6400 Plymouth Ave., St. Louis, let contract W. M. Sutherland Building & Contracting Co., Syndicate Trust Building, St. Louis, to erect ammunition plant; 1 story; 130x512 ft.

Okla., Oklahoma City—Cotton Pickers.—International Cotton Picker Corp., 119½ N. Broadway, organized; Jas. W. Dinsmore, Prest.; F. W. Barnacle, V.-P. and Mgr., both of Oklahoma City; Robt. E. West, Secy., Davis, Okla.; erect fireproof buildings and install machinery to manufacture cotton pickers; plans not fully decided. Lately noted inceptd., capital \$10,000. (See Machinery Wanted—Building Materials; Electrical Equipment.)

Tenn., Harriman—Mine Cars, Contractors' Equipment, etc.—Harriman Foundry & Machine Works, W. G. Baker, Mgr., succeeds Harriman Mine Car & Mfg. Co. with capital stock increased from \$10,000 to \$25,000; upon completion of new plant will have large capacity for mine cars and mining equipment, contractors' and logging equipment, iron and brass castings. (Additional facts lately noted, including description of new buildings.)

Va., Charlottesville—Adding Machines.—Cheape's Adding Machine Co., T. S. Keller, Prest., increased capital from \$100,000 to \$100,000; has not determined building plans; proposes to manufacture adding machines.

Va., Norfolk—Machinery.—Empire Machinery & Hardware Corp. increased capital from \$100,000 to \$125,000.

## GAS AND OIL ENTERPRISES

Ala., Mobile.—Southern Co-Operative Oil & Development Co., capital \$70,000, inceptd.; E. A. Sommers, Prest.; B. F. Bliss, V.-P.; E. E. Neal, Secy.; all of Peoria, Ill.

Ga., Atlanta—Gasoline Filling Station.—Texas Oil Co., Houston, Tex., will erect gasoline filling station at West Peachtree and Alexander Sts.; cost \$4000.

Ky., Carter County.—Kentucky Land, Gas & Oil Co., J. D. Stone, Prest, 4 Arcade Bldg., Norfork, Va., will drill oil well; 200 to 300 ft., in Carter County. (See Machinery Wanted—Well-drilling.)

Ky., Louisville.—Rolling Fork Oil & Gas Co., capital \$50,000, inceptd. by Elliott Thomson, C. S. Thomson and Frances I. Thomson.

La., Monroe—Gas-pipe Line.—Ouachita Natural Gas & Oil Co., E. N. Florsheim, Mgr., will construct duplicate 6-in. gas-pipe line to Monroe.

La., Perryville.—Perryville Oil & Gas Co. increased capital from \$25,000 to \$75,000.

La., Shreveport.—Pot Shot Oil Co., capital \$50,000, inceptd.; S. R. Jennings, Prest.; F. M. Fuller, V.-P.; H. L. Carnahan, Secy., Treas.

Mo., Kansas City—Oil Refinery.—Western Oil & Refining Co., capital \$75,000, inceptd. by J. S. Reber, J. L. Chapman and Franklin Hudson.

Mo., Kansas City.—Drovers' Oil Co., capital \$85,000, inceptd. by H. D. Molohan, E. S. Keller, J. J. Hawes and others.

N. C., Rocky Mount—Gas Plant.—City contemplates installing additional machinery. Address The Mayor.

Okla., Bartlesville—Gasoline.—A. & S. Eastern Oil & Gasoline Co., capital \$100,000, inceptd. by B. H. Saunders, H. D. Albery and B. D. Foster.

Okla., Covington—Gas Pipe Line.—City Council authorized \$12,000 bonds to construct gas pipe line. Address The Mayor.

Okla., Enid.—Morrow-Pioneer Oil & Gas Co., capital \$200,000, inceptd. by W. E. Sheetz and M. W. Truitt of Enid, and W. P. Morrow of Woodward, Okla.

Okla., Oil City—Oil Refinery.—American Industrial Oil Co., J. B. French, Prest., Oklahoma City, purchased Kentoma property consisting of 90 acres in Oil City District of Carter County and will build oil refinery; let contract Bob Stutsel and others to drill 35 additional wells.

Okla., Okmulgee—Pipe Line.—Indiogama Pipe Line Co., capital \$100,000, inceptd. by Guy M. Steele of Okmulgee, E. E. Schock of Selma, Mo., and W. O. Schock of St. Louis, Mo.

Okla., Oklahoma City—Texo Drilling Co., capital \$100,000, inceptd. by J. S. Sankay and F. P. Lienallen of Oklahoma City, and W. G. Skelly of Tulsa.

Okla., Oklahoma City—Oil Refinery.—Colonial Oil & Refining Co., capital \$1,000,000, inceptd. by Lester B. Gum, Chas. H. Taylor and Walter D. Caldwell.

Okla., Oklahoma City—Oil Refinery.—Foyil Refining & Oil Co., capital \$50,000, inceptd. by J. B. Darden of Oklahoma City, D. Green-

wood of Kiel, Okla., and A. C. Chesar of Devol, Okla.

Okla., Okmulgee.—Phillips Oil & Gas Co., capital \$250,000, inceptd. by Waite Phillips, H. A. Galloway and G. E. Phillips.

Okla., Okmulgee.—Clifton Drilling Co., capital \$12,000, inceptd. by H. A. Galloway, Waite Phillips and G. E. Phillips.

Okla., Okmulgee.—Galloway Producing Co., capital \$12,000, inceptd. by G. E. Phillips, Waite Phillips and H. A. Galloway.

Okla., Pawhuska.—Osage Arrow Oil Co., capital \$200,000, inceptd. by Chas. M. Cope of Pawhuska, Geo. L. Miller of Ponca City, Okla., and R. J. England of Kansas City, Mo.

Okla., Quinton.—Quinton Relief Oil & Gas Co., capital \$30,000, inceptd. by J. Worth Gray, H. D. Garretson and C. S. Aston.

Okla., Skiatook.—Hocker Oil & Gas Co., capital \$10,000, inceptd. by Phil Hocker of Skiatook, W. L. Hocker and H. R. Fants of Avant, Okla.

Okla., Spiro.—Achille Oil & Gas Co., capital \$25,000, inceptd. by Lee V. Smith, W. C. Peters and H. I. Falconer.

Okla., Tulsa.—Arkano Oil & Gas Mining Co., capital \$50,000, inceptd. by H. C. Holderman, C. L. Combs and C. D. Swem.

Okla., Tulsa.—Mitchell Oil & Gas Co., capital \$100,000, inceptd. by John O. Mitchell, Young O. Mitchell and Alice M. Mitchell.

Okla., Tulsa—Gasoline.—Niagara Gasoline Co., capital \$100,000, inceptd. by W. P. Kingsbury, Albert H. Bell and Ray S. Fellows.

Okla., Wynnewood.—Nicholson Oil & Gas Co., capital \$25,000, inceptd. by P. R. Eskridge and E. L. Kendal of Wynnewood, and C. P. Nicholson of Cleveland, Okla.

Tex., Beaumont.—New York Oil Co., capital \$10,000, inceptd. by E. D. Lee and Walter J. Crawford of Beaumont, and H. G. Curran of New York.

Tex., Burk Burnett.—Knauth Oil Co., capital \$120,000, inceptd. by J. A. Staley, S. L. Fowler, J. H. Brower and others.

Tex., Fort Worth.—Madison Oil & Gas Co., capital \$100,000, inceptd. by W. C. Forbes, T. E. Patton and L. F. Collins.

Tex., Houston.—United Petroleum Co., capital \$10,000, inceptd. by G. W. Hindman, W. C. Keeble and J. W. Hinnemann.

Tex., Pampa.—San Angelo Development Co., capital \$2000, inceptd. by J. R. Brown, W. T. Peacock and G. E. Blair.

Tex., Rio Grande.—Shurrier Developing Co., capital \$25,000, inceptd. by S. R. Cawthorn and D. H. McLaughlin of Pharr, Tex., and H. H. Shurrier of St. Louis, Mo.

## HYDRO-ELECTRIC PLANTS

Ala., Geneva.—Geneva Power Mfg. Co., D. O. Vaughn, Prest., plans to develop water-power on Double Bridge Creek; build hydro-electric plant; plans not matured. (Previously noted.)

N. C., Esmeralda.—Thos. F. Turner and J. T. Patrick (latter of Southern Pines, N. C.), will build 50 H. P. plant for electric lighting, heating and power; no dam to be built at present; plans not definite; contemplate installing water wheels, dynamos, motors, electric-lighting outfit, etc. Lately noted. (See Machinery Wanted—Electrical Machinery, etc.)

S. C., Lockhart.—Lockhart Power Co. will build hydro-electric plant; Emslie Nicholson, Treas., Monarch Mills, Union, S. C., writes to Manufacturers Record: Lockhart Power Co., subsidiary corporation of Monarch Mills, is having plans and specifications prepared for full development of its power; not ready to give information. (Previously noted planned.)

Tenn., Pressmen's Home.—Clinch River Hydro-Electric Co., Geo. L. Berry, Prest., progressing with construction hydro-electric plant on Richardson's Creek, near Clinch River, Hancock County; cost \$60,000; open flume 1½ ml. long; wooden take-down flume 400 ft. long; 10-ft. head; 9 ml. transmission, cost \$100 per ml.; develop 1000 H. P.; will electrically heat Pressmen's Home, using old radiators and boilers; awarded all machinery contracts; Jno. N. Adams, Engr., Charleston, Tenn., in charge construction, using day labor.

Tenn., Okmulgee—Pipe Line.—Indiogama Pipe Line Co., capital \$100,000, inceptd. by Guy M. Steele of Okmulgee, E. E. Schock of Selma, Mo., and W. O. Schock of St. Louis, Mo.

Okla., Oklahoma City—Texo Drilling Co., capital \$100,000, inceptd. by J. S. Sankay and F. P. Lienallen of Oklahoma City, and W. G. Skelly of Tulsa.

Okla., Oklahoma City—Oil Refinery.—Colonial Oil & Refining Co., capital \$1,000,000, inceptd. by Lester B. Gum, Chas. H. Taylor and Walter D. Caldwell.

Okla., Oklahoma City—Oil Refinery.—Foyil Refining & Oil Co., capital \$50,000, inceptd. by J. B. Darden of Oklahoma City, D. Green-

## ICE AND COLD-STORAGE PLANTS

Okla., Pauls Valley.—Waahita Electric Power Co. will erect ice plant; concrete; 50x125 ft.; install 20-ton plant; provide facilities to increase to 40 tons capacity.

Tex., Waco.—Peyton Randle and associates, planning to build warehouse, contemplated installing cold-storage department.

W. Va., Charleston.—Robert Ingerson Co. and others will build cold-storage plant; fire-proof; cost \$300,000.

W. Va., Parkersburg.—Pure Ice Co., capital \$100,000, inceptd. by B. M. Whaley of Parkersburg; A. E. Whaley of Athens, W. Va.; W. H. H. Jett of Marietta, O., and others.

## IRON AND STEEL PLANTS

Ala., Birmingham—Rolling Mill.—Connors Steel Co. chartered with \$300,000 capital; Geo. W. Connors, Prest.; W. M. Hoke, V.-P. and Treas.; S. S. Paul, Secy.-Mgr.; Mr. Connors writes to Manufacturers Record: New company is incorporation of Woodlawn Rolling Mill, heretofore owned and operated by me.

N. C., Southport—Steel Plant.—Wm. H. Garland, 404 Dock St., Wilmington, N. C., proposes to establish steel plant. (See Shipbuilding Plants.)

## IRRIGATION SYSTEMS

Tex., Orange.—Orange County Irrigation Canal Co. will rebuild pumping plant No. 2 reported burned.

## LAND DEVELOPMENTS

Ala., Jackson County.—Rivermont Farm Corporation, Bristol, Tenn., chartered, capital stock \$80,000, advises Manufacturers Record: A. L. Osborne, Prest., Bristol, Tenn.; W. A. Minton, Secy.; T. E. Weaver, Mgr., Scottsboro, Ala.; develop 2700 acres; general farming, and manufacture 1,000,000 ft. lumber annually; has equipment; this year plant 500 acres cotton and probably 400 acres corn.

Ark., Hot Springs.—Letchworth Farms Co., capital \$150,000, inceptd.; Leo Koretz, Prest.-Treas., Chicago; Henry K. Smith, Secy., Wheatley, Ark.

Fla., Vero.—Indian River Farms Co., capital \$100,000, inceptd.; Leo Koretz, Prest.; A. H. Hunter, V.-P.; both of St. Louis, Mo.; Geo. M. Willing, Secy.-Treas.; C. M. Vinnecke, local Mgr.; both of Vero; develop 180 acres in Indian River Farms, southwest of Vero, planting 100 acres in citrus fruit, 40 acres in sugar-cane and 40 acres in truck crops.

Ky., Louisville.—Highland Park Realty Co., capital \$10,000, inceptd. by G. C. Terry, C. O. Tice and O. H. Harrison.

Mo., Kansas City.—Davidson Land & Cattle Co., capital \$30,000, inceptd. by Luther Davidson, George W. Pettijohn and James M. Adams.

N. C., Hendersonville.—Stone Mountain Co., capital \$125,000, inceptd. by A. C. Tibjeau, J. F. Justice and Mrs. Claudia Holt Oates.

Tex., Corpus Christi.—Freeborn-Sherman Development Co., capital \$40,000, inceptd. by S. A. Freeborn, H. G. Sherman and A. Fred Cole.

Tex., Deepwater.—Deepwater Farm Co., capital \$16,400, inceptd. by A. I. Hovland and W. F. Jay of Deepwater and W. E. Jones of Houston.

Va., Lynchburg.—Rockfish Valley Land Corporation, capital \$200,000, chartered; Andrew M. Kistler, Prest., Morgantown, N. C.; Sedgwick Kistler, Secy., Rock Haven, Pa.

W. Va., Charleston.—Cart Development Co., capital \$5000, inceptd. by J. W. Cart, A. M. Wallace, D. S. Martin and others.

W. Va., Charleston.—Bowman Land Co., capital \$10,000, inceptd. by Tom B. Bowman of Charleston, S. H. Bowman, Maude Bowman and others of Huntington, W. Va.

## LUMBER MANUFACTURING

Ala., Birmingham.—Advance Lumber Co. increased capital from \$10,000 to \$50,000.

Ala., Birmingham.—Lathrop Lumber Co. increased capital from \$10,000 to \$300,000.

Ala., Chelsea.—Hartsfield Lumber Co., capital \$6000, inceptd.

Ala., Cook's.—Elkmont Lumber Co., capital \$200,000, inceptd. with E. S. Deal, Prest., Buhl, Ala.; U. M. Bachtel, V.-P. and Gen. Mgr., Chattanooga, Tenn.; W. W. Deal, Secy.-Treas., Buhl, Ala.; build plant with daily capacity 75,000 ft. lumber; include sawmill, planing-mills, dry kilns, etc.; has 10,000 acres timber land; completed 6 mi. railroad and plans several additional miles; expenditure \$250,000, including timber rights in Elmore County, across Tallapoosa River; has 2-span steel bridge across River at Ware's Ferry.

## METAL-WORKING PLANTS

Ky., Louisville—Aluminum.—Badger Aluminum Co., capital \$1000, inceptd. by Jas. H. Parker, Jos. A. Fleck and Berthold Hoschner.

Md., Baltimore—Enameling.—National Enameling & Stamping Co., 1901 Light St., will erect 1-story addition at Light and Wells Sts.; C. M. Anderson, Archt., 324 N. Charles St.; John Waters Building Co., Contr., 23 E. Center St.; both of Baltimore.

Md., Baltimore—Meteorological Instruments.—Julian P. Fries & Son, Baltimore St. and Central Ave., will have plans prepared by E. H. Glidden, 10th floor Garrett Bldg., Baltimore, for addition; 4 stories; brick; 39x47 ft.; bids until Jan. 5; following con-

tractors will estimate: West Construction Co., American Bldg.; Price Concrete Construction Co., Maryland Trust Bldg.; John F. Kunkel, Stony Run and 40th St.; J. J. Walsh & Sons, 1533 Maryland Ave.; B. F. Bennett Building Co., 123 S. Howard St.; Coggswell-Koether Co., 406 Park Ave.; David M. Andrew Co., Mt. Vernon Ave. and 26th St.; all of Baltimore.

### MINING

Ala., Sylacauga—Graphite.—Seminole Graphite Co., H. E. Bunnell, Secy.-Treas., increased capital from \$100,000 to \$200,000; now building 750-ton mill. (Previously not organized, etc.)

Ark., Yellville—Zinc.—Ed. Householder and others of Stuttgart, Ark., will install equipment to facilitate zinc mining.

Mo., Waco—Lead and Zinc.—Butte-Kansas Mining Co., E. A. Wiltsee, Mgr., will rebuild mill reported burned at loss of \$75,000.

N. C., Andrews—Iron.—Andrews Iron Mining Co., capital \$5000, inceptd. by C. B. Hoblitzell, D. B. Morgan and Bessie V. Matthews.

Okl., Ardmore—Zinc.—Bear Cat Zinc Mining Co., capital \$175,000, inceptd. by I. J. Willingham, C. E. Shuman and W. D. Potter.

Okl., Henryetta—Lead and Zinc.—Oseuma Lead & Zinc Co. organized; R. S. Simmons, Prest.; J. W. Gallimore, V.-P.; Paul Mackensen, Secy.; develop 520 acres; drilling only at present. Lately noted inceptd. with \$30,000 capital. (See Machinery Wanted—Mining.)

Okl., Miami—Lead and Zinc.—American Lead & Zinc Co. of Miami and Ardmore will build mill on 20-acre lease.

Okl., Miami—Lead and Zinc.—Carter Lead & Zinc Co. organized; W. A. Sanders, Prest.; J. D. McCarty, V.-P.; K. T. Henson, Secy.-Treas., all of Carter, Okla.; E. C. Woods, Miami, Mgr.; develop 40 acres. Lately noted inceptd., capital \$25,000. (See Machinery Wanted—Mining Machinery.)

Okl., Miami—Lead and Zinc.—True Blue Zinc & Lead Co., capital \$110,000, inceptd. by Geo. Appling, G. L. Herring and W. C. Farmer, all of Wetumka, Okla.

Okl., North Century—Lead and Zinc.—Federal Mining Co., Geo. McConnell, Secy., Ada, Okla., has plans and specifications for mill.

Okl., Oklahoma City—Smelting.—Golden Rod Smelting Co. increased capital from \$1,600,000 to \$2,100,000.

Okl., Oklahoma City—Medical Mining Co., capital \$200,000, inceptd. by E. S. Lain and C. B. Taylor of Oklahoma City and T. C. McCurdy of Purcell, Okla.

Okl., Oklahoma City—Bendene Mining Co., capital \$200,000, inceptd. by John S. Pine, J. R. Green and M. G. Melster.

Okl., Oklahoma City—Lead and Zinc.—Blue Jay Mining Co., capital \$100,000, inceptd. by Norman Nelson, W. N. Hayes and W. A. Ledbetter.

Okl., Peoria—Lead and Zinc.—Nebo Lead and Zinc Co., capital \$300,000, inceptd. by E. F. Sparrow, D. A. Thurman and M. Nowlin, all of Oklahoma City.

Okl., Picher—Lead and Zinc.—Hugh Kerley of Ringling, Okla., and J. F. Stotts of Ardmore, Okla., purchased 20-acre mining lease and will organize company with \$200,000 capital for development.

Okl., Quapaw—Lead and Zinc.—Rich Strike Mining Co., M. C. Fleming (Prest. Union State Bank), Shawnee, Okla., will erect mill on mining property near Quapaw; later plans to build 2 additional mills.

Okl., Sunnyside—Lead and Zinc.—Hare Mining & Milling Co., Picher, Okla., is reported to build concentrating plant on lease at Sunnyside.

Okl., Vinton—Vinita Mining & Royalty Co., capital \$50,000, inceptd. by S. F. Arthur, John A. Wise and J. M. Jones.

Tex., Orla—Sulphur.—Standard Sulphur Corp. organized; A. F. Pudrith, Prest.; Alfred Tinney, V.-P.; Robt. B. Swart, Treasurer; G. F. Lathrop, Secy.; Paolo Fischer, Cnsit. Engr.; all of Detroit; F. D. Phillips, Sales, Mgr., 1209 Majestic Bldg., Detroit, Mich., wires Manufacturers Record: Proprietary in Culberson and Reeves county, 7 mi. southwest of Orla, on Santa Fe Ry.; 4907 acres; initial unit plant with daily capacity 100 tons refined sulphur; this unit, with field equipment, to cost \$75,000; now removing overburden; opening large bodies of ore ready for treatment; engineers expect to complete plant in April. Further writes to Manufacturers Record: Nearly 3000 acres show surface outcroppings of sulphur; exploration indicates ore veins almost on surface; overload of earth 1 to 5 ft.; recent report on property by Paolo Fischer, 2210 Prairie Ave., Chicago.

Va., Pearisburg—Crockett Mining Corp., capital \$25,000, chartered; W. Crump Crockett, Prest.; M. P. Farrier, Secy.

W. Va., Clarksburg—Glass Sand.—Century Glass Sand Co., capital \$50,000, inceptd. by J. Edgar Long, H. B. Cooper, Paul E. Reutter and others.

### MISCELLANEOUS CONSTRUCTION

Ala., Tuscaloosa—Wharf.—City will construct wharf; \$50,000 bonds previously noted; Norfleet Harris, City Commr.

Fla., Fort Thompson, P. O. at Fort Myers—Locks.—Government let contract W. R. Wallace & Co. of Fort Myers to construct locks in river about Fort Thompson; cost about \$30,000.

Fla., St. Petersburg—Seawall, etc.—City rescinded contract lately noted let to Cal. F. Thomas Co. for water-front improvements and re-awarded same to J. B. McCrory Co. of Atlanta, Ga., at \$81,171.25; contract includes: Seawall from 5th to 7th Aves., with exception of work completed, \$34,848; Southside pier and pierhead, \$4350; pavilion on Southside pier, \$200; dredging and filling in behind seawall, about 265,155 cu. yds., \$39,773.23.

La., Shreveport—Levee.—Levee Board let contract Lower Coast Construction Co. of Pointe-a-la-Hache, La., to construct levee work above Shreveport and to Roach & Stansell of Memphis, Tenn., to construct levee below Shreveport. (Lately invited bids.)

Tex., Corpus Christi—Water-front Improvement.—City voted \$600,000 bonds to improve water-front; plans include construction of 15,000-ft. shore protection, several million yards of filling, 5 mi. paved streets, concrete bridges, etc.; Roy Miller, Mayor. (Lately noted to vote.)

### MISCELLANEOUS ENTERPRISES

Ala., Birmingham—Construction.—American Construction Co., capital \$10,000, inceptd.; Dan B. Dimick, Prest., Birmingham; Wm. B. Troy, V.-P., Atlanta, Ga.; Julian E. Dow, Secy.-Treas., Birmingham.

Ala., Mobile—Steamboat Line.—Warrior Transportation Co., capital \$25,000, inceptd. by J. T. Pickley, E. V. Pickley and J. L. Brereton.

Fla., Clearwater—Incinerator.—City votes Feb. 7 on \$5000 bonds to purchase and install garbage-disposal plant. W. S. Gregory, City Clerk.

Ky., Louisville—Advertising.—Paul H. Waggoner Co., capital \$25,000, inceptd. by E. C. Mayes and H. C. McKinney of Louisville, and Paul H. Waggoner of Columbia, Ky.

Mo., St. Louis—Engineering.—Efficiency Engineering Co., capital \$2000, inceptd. by Henry A. Feindt, Jr., Harold M. Thompson and Frank P. Thompson.

N. C., Fairfield—Water Transportation.—Norfolk & Alligator Line, capital \$25,000, incorporated by Iredell Caboom, D. W. Hayman and Lee Mann.

Okl., Lone Wolf—Hardware.—Strange-Warren Hardware Co., capital \$6000, inceptd. by C. H. Strange, T. S. Warren and J. O. Wells.

Okl., Sapulpa—Printing.—Jennings Printing Co., capital \$35,000, inceptd. by Emery Jennings, Claude W. Harmont and Edward F. Kyselle.

S. C., Greenville—Electrical Engineering.—Gower-Mason Electric Co., capital \$35,000, inceptd. by R. S. Huntington and Dupont Guerry, Jr.

S. C., Spartanburg—Milk Pasteurization.—J. T. Willard, O. F. Moore, G. B. Adderson and others are interested in plan to establish milk-pasteurizing plant; proposed capacity 30 gals.; cost \$5000 to \$8000.

Tenn., Jonesboro—Laundry.—White City Laundry, capital \$10,000, inceptd. by O. E. Miller, Jas. H. Miller, Glenn Miller and others.

Tex., Amarillo—Printing, etc.—Russell & Cockrell, 706 Polk St., lately noted to rebuild burned printing plant, will occupy 48x10-ft. 1-story building with basement, for which contract was recently noted let by Allen Early, owner, to J. D. Singleton; cost of building \$16,000; printing machinery cost \$20,000, has been purchased; printing, stationery, advertising and office equipment plant.

Tex., Ennis—Hardware.—Craig Hardware

Co., capital \$30,000, inceptd. by E. E. Craig, Harry Atwood and Mrs. N. E. Craig, Sr.

Tex., Temple—Publishing.—Temple Bulletin Publishing Co., capital \$3000, inceptd. by Myra W. Eversden, Percy B. and Lon P. Eversden.

Tex., Wichita Falls—Grain Elevator.—Wichita Mill & Elevator Co. increased capital from \$300,000 to \$1,200,000.

Va., Chase City—Mineral Water.—Mecklenburg Springs, C. J. Edwards, Prest., U. S. Navy, Philadelphia, Pa., and T. A. Brooks, Secy., Chase City, acquired Mecklenburg Medicinal Wells and bottling plant; will operate in connection with \$300,000 sanitarium to be constructed. Lately noted inceptd., capital stock \$500,000. (See Hospitals, Buildings Proposed.)

Va., Lexington—Hardware.—Stockbridge Hardware Co., capital \$25,000, inceptd.; R. H. Bain, Prest.; H. W. Black, Secy.

Va., Lynchburg—Construction.—John T. McKinney Construction Co., 1114 People's National Bank Bldg., capital \$250,000, chartered; John T. McKinney, Prest.; Jas. R. Ford, V.-P.; R. C. Blackford, Secy.; Jas. L. Martin, Treas.; general contracting engineering and quarrying; install steam and electric railways and public utilities machinery.

W. Va., South Charleston—Builders' Supplies.—South Charleston Builders' Supply Co., capital \$10,000, inceptd. by H. P. Beck, K. E. Reed, L. C. Massey and others.

Tenn., Chattanooga—Paint.—Lookout Paint Co., capital \$100,000, inceptd. by J. H. Stewart, Perry McKinney, E. Samuel and others.

Tenn., Memphis—Drugs.—Breeden Drug Co., capital \$50,000, inceptd. by C. C. Breeden, E. M. Breeden, A. D. Otis and others.

Tenn., Nashville—Paper Boxes.—American Paper Box Mfg. Co. increased capital from \$30,000 to \$100,000.

Tenn., Nashville—Bags.—National Bag Co., capital \$15,000, inceptd. by Milton Frank, J. S. Albert, Alma Frank and others.

Tenn., Nashville—Overalls.—Volunteer Mfg. Co. increased capital from \$75,000 to \$100,000.

Tex., Dallas—Brewery.—Dallas Brewery, capital \$150,000, inceptd. by S. T. Morgan, John Schuetz, Henry Maus and others.

Tex., San Antonio—Peanut Butter.—J. R. Hodges, 119 Helman St., contemplates installing machinery to manufacture peanut butter. (See Machinery Wanted—Peanut Machinery.)

Tex., Waco—Creamery.—Purity Creamery Co. will erect creamery at 5th and Columbus Aves.; 150x300 ft.; reinforced concrete; cost \$6000; let contract Sam Sampson of Waco; install equipment.

Va., Draper—Brooms.—J. W. Gardner, Cashier of Bank of Draper, may establish broom factory. (See Machinery Wanted—Broom Machinery.)

Va., Lynchburg—Overalls.—Jobbers Overall Co., A. C. Barrow, Prest., advises Manufacturers Record: New building to cost \$70,000; new machinery to cost \$60,000; use 125 electrical H. P.; electrical equipment will cost \$25,000, contract let to C. W. Whitmore, Lynchburg; increase daily capacity by 900 dozen; new capacity will be 1500 dozen; original plant cost \$85,000 for building and \$40,000 for machinery. (Lately noted as: Increase capital from \$50,000 to \$1,250,000; contracted for 186x63-ft. reinforced concrete and steel addition; C. W. Hancock & Sons, Contrs.; Heard & Cardwell, Archts.; all of Lynchburg.)

Va., Norfolk—British-American Tobacco Co. leased building containing 75,000 sq. ft. floor space and will equip as export cigarette factory; purchased machinery; replace broken plant. (Lately noted to rebuild.)

Va., Roanoke—Specialties.—American Specialty Corp., capital \$100,000, chartered; R. M. Garrett, Jr., Prest., Roanoke; J. Bunting, Secy., Bristol, Va.

W. Va., Clarksburg—Window Glass.—Hand Window Glass Co. will rebuild plant reported burned.

W. Va., Lock Seven—Explosives.—War Department, Washington, D. C., will build plant to manufacture powder and other explosives; reported to cost \$9,000,000; site of 1500 acres at Lock Seven (or Crawford City), on north side of Kanawha River, near St. Albans; complete and operate first unit, costing several million dollars; then add other units; ultimate output reported to be 50,000 lbs. in 24 hrs.; employ 20,000 to 30,000 men in and around completed plant; construct barracks and accompanying buildings on river portion of site (on plan of army cantonments) for employees; steam or natural gas for heating, and probably gas, as big mains now pass through site; all construction under direction Cantonment Division of War Dept.; Contr., Thompson-Starratt Co., 51 Wall St., New York; Daniel C. Jackling, 244 Madison Ave., New York, in general charge \$90,000,000 expenditure for War Dept. explosives factories, storage plants, etc.

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## MANUFACTURERS RECORD.

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**MOTOR CARS, GARAGES, TIRES, ETC.**

Ala., Birmingham—Automobiles.—Jitney Bus Co., capital \$2000, incptd.; W. P. Byrd, Pres.; J. T. Rutherford, V.-P. and Mgr.; T. L. Mahry, Secy.

Ala., Mobile—Tires.—Akron Tire & Service Co., capital \$2000, incptd.; W. Nusbaum, Pres.; A. B. Malone, Secy.-Treas.; E. G. Maione, Mgr.

La., Vinton—Garage.—A. Perry and J. L. Perry let contract P. Olivier & Son, Lake Charles, La., to erect garage; brick; 1 story; 60x10 ft.

Md., Baltimore—Garage.—Michael Kirsch will rebuild garage at 7 E. Hill St. reported burned at loss of \$25,000.

Md., Baltimore—Garage.—Autogenous Welding & Equipment Co., 1219 Maryland Ave., will erect addition to garage at 1221-23 Maryland Ave.; 96x33 ft.; plans by Hugh L. Kavanaugh, 226 E. Eager St., Baltimore.

Md., St. Helena—Automobiles.—War Dept., Washington, D. C., will build automobile assembling plant to cost several million dollars for buildings and machinery.

Okla., Frederick—Automobile Device.—Auto Gas Holding Co., capital \$30,000, incptd. by R. L. Lawson and H. R. Steward of Oklahoma City, and W. J. Nichols of Frederick, Okla.

Okla., Henryetta—Garage.—Swafford Garage let contract J. McManiman to erect garage.

Okla., Oklahoma City—Automobile Supplies.—Auto Owners' Supply Co., capital \$10,000, incptd. by C. O. Newcomb of Oklahoma City, W. H. Henke and Grady F. Slattery of Elk City, Okla.

Okla., Pauls Valley—Garage.—Baird Motor Co. will erect annex to garage; brick.

Okla., Tulsa—Garage.—Westwood Garage Co., capital \$2000, incptd. by A. L. Bourke, C. L. Schweng and Emile Roy.

Okla., Tulsa—Garage.—J. A. Chapman will erect garage at 1606 S. Carson Ave.; cost \$4000.

Okla., Tulsa—Automobile Supplies.—Tulsa Motor Supply Co., capital \$50,000, incptd. by J. A. Campbell, C. W. Kesseling and Glenn Campbell.

Okla., Tulsa—Tires and Rubber.—Union Tire & Rubber Co., capital \$10,000, incptd. by John Boling, E. L. Tieche and E. J. Quigley.

Tenn., Memphis—Tires and Vulcanizing.—Memphis Tire & Vulcanizing Co., capital \$10,000, incptd. by R. E. Priddy, A. Y. Davis, L. J. Davis and others.

Tenn., Memphis—Motor Trucks.—Southern United States Truck Sales Co., capital \$10,000, incptd. by J. G. Lavar, E. C. Boykin, J. M. Hughes and others.

Tex., Fort Worth—Automobiles.—Texas Motor Car Assn., Flat Iron Bldg., organized; capital \$2,000,000; J. C. Vernon, Pres.; Wm. Ginnuth, V.-P.; C. F. Sanders, Secy.; build plant to manufacture automobiles, trucks and tractors; annual capacity 5000; erect following buildings: 100x50 ft., 1 story; 100x500 ft., 3 stories; 80x300 ft., 1 story; administration building, 2 stories, 60x100 ft.; 1-story structures of mill construction and 3-story of fireproof construction; cost of buildings \$200,000; contract not let; construction under company's supervision; M. C. Parker, Archt.; H. J. Wells, Chief Engr.; both in Flat Iron Bldg., Fort Worth.

Tex., Haskell—Garage.—M. O. Lyle will rebuild garage reported burned at loss of \$5000.

Tex., Houston—Automobiles.—Model Carriage & Auto Co., capital \$7000, incptd. by John B. Roffall, John F. Cole and Mrs. Francis Roffall.

Tex., Orange—Garage.—Hill Motor Co., capital \$15,000, incptd.; I. L. Hill, Pres.; R. L. Lester, V.-P.; J. C. Tracey, Secy.; G. M. Sells, Treas.; erect brick garage costing \$30,000.

Tex., Waco—Vulcanizing.—Guarantee Vulcanizing Co., capital \$2000, incptd. by J. C. Kilgore, T. Moore Hays, H. Hagedorn, Jr., and C. T. Shook.

Va., The Plains—Garage.—J. L. Howard will rebuild garage reported burned.

Va., Doswell—Motor Trucks.—Norman Motor Truck Corp., incptd. with Robt. W. Crawford, Pres.; Chicago; Jas. H. Price, V.-P., Richmond; has 101-acre site and will build plant to assemble and manufacture heavy motor trucks.

W. Va., Charleston—Automobiles.—Mountain State Motor Car Co., capital \$50,000, incptd. by Chas. A. Ellison, O. E. Royal, R. Kemp Morton and others.

**ROAD AND STREET WORK**

Ala., Decatur—Morgan County Comms. will construct 13 mi. of roads connecting Albany and Hartsville; invite bids; cost \$24,000.

Ark., Pocahontas—Randolph County Commissioners have plans by State Highway Dept., Little Rock, for 10 mi. macadam road; cost \$61,000.

Ark., Russellville.—Pope County, D. A. Gibson, County Clerk, will grade roads; \$24,000 available; no contracts; Ira Griffin, Russellville, Engr. (Lately noted as having road plans.)

Fla., Clearwater.—City votes Feb. 7 on \$29,250 bonds to improve streets; W. S. Gregory, City Clerk.

Fla., Key West—Monroe County Comms., D. Z. Filer, Clerk, asks bids until Jan. 31 on road construction; Stock Island, Key West, Big Pine Key and Key Largo Roads; 40 mi.; also 900-ft. timber trestle. (See Machinery Wanted—Road Construction.)

Fla., Pensacola—Escambia County, Precinct No. 24, and City of Pensacola voted to create special tax district to pave county's portion of road to air station and forts; 2½ mi. Address County Comms.

Ga., Valdosta—Lowndes County Comms., W. B. Conoley, Chrmn., lately noted as planning bonds, advises Manufacturers Record: Will not issue bonds; \$20,000 was recommended by State Highway Com. as Government aid.

La., Winnfield—Winn Parish Police Jury issued \$30,500 certificates for road construction.

Md., Baltimore—Com. for Opening Streets, H. J. Robinette, Pres., plans to improve 50 streets in Annex during 1918, expending \$50,000 of Annex loan.

Md., Chestertown.—Town Comms. contemplates \$14,000 bond issue for town improvements.

Mo., Bethany—Harrison County, Bethany Township, is reported as contemplating vote on \$35,000 bonds to construct roads. Address County Comms.

Mo., Stanberry—City let contract Edgar Main of Liberty, Mo., at \$200,000 to pave 5 blocks of Main St. with brick; asphalt filler; Black & Ventch, Engrs., Interstate Bldg., Kansas City. (Lately noted to have let contract.)

Mo., St. Joseph—Buchanan County Commissioners ordered vote for Jan. 24 on \$2,000,000 bonds to construct roads. (Lately noted to vote in January.)

N. C., Louisburg—Franklin County, Gold Mine Township, voted bonds to construct roads. Address County Comms.

Okla., Okmulgee—Okmulgee County Commissioners let following contracts for road construction: Western Paving Co., Oklahoma City, 50 mi. bitumastic paving on macadam base; J. J. Harrison Construction Co., Henryetta, Okla., 100 mi. grading and culverts, costing about \$170,000; S. P. Romans, Beggs, Okla., 18 mi. grading and culverts; total amount available (bond issue) \$800,000; Harrington, Howard & Ash, Consol. Engrs., Kansas City, Mo. (Lately noted inviting bids.)

Okla., Tulsa—City's contract, lately noted let to F. P. McCormick of St. Louis and Tulsa, involves construction to amount of \$325,000; asphalt pavement on concrete base; H. H. Wyss, City Engr.

Tenn., Celina—Clay County is reported to have voted \$100,000 bonds to construct roads. Address County Comms.

Tenn., Rogersville—Hawkins County Commissioners let contract R. A. Campbell of Mooresburg, Tenn., at \$7250 to construct 6 mi. of 18-ft. road.

Tex., Athens—Henderson County, Malakoff Road District, is reported to have voted \$50,000 bonds to construct roads. Address County Comms.

Tex., Bonham—Fannin County, Road District No. 22, is reported to have voted \$70,000 bonds to construct roads. Address County Comms.

Tex., Canton—Van Zandt County, Road District No. 1, is reported to have voted \$300,000 bonds to construct roads. Address County Comms.

Tex., Conroe—Montgomery County contemplates voting on \$150,000 bonds to construct roads. Address County Comms.

Tex., Crosbyton—Crosby County will construct East Plains or Blanco Canyon Road, Precinct No. 2; Pink L. Parrish, County Judge, receives bids until Jan. 10; Henry E. Elrod, Engr., 505 Interurban Bldg., Dallas. (See Machinery Wanted—Road Construction.)

Tex., Fairfield—Freestone County, Teague Dist., voted \$150,000 bonds to construct roads. Address County Comms.

Tex., Fairfield—Freestone County, Wortham Dist., voted \$75,000 bonds to construct 25 mi. of hard-surface roads. Address County Comms.

Tex., Franklin—Robertson County voted \$75,000 bonds to construct roads. Address County Comms. (Noted in Nov. as to vote.)

Tex., Groesbeck—Limestone County, Road District No. 10, is reported to have voted \$65,000 bonds to construct roads. Address County Comms.

Tex., Hempstead—Walker County, Road District No. 10, is reported to have voted \$15,000 bonds to construct roads. Address County Comms.

Tex., Hemphill—Sabine County is reported to have voted \$50,000 bonds to construct roads. Address County Comms.

Tex., La Grange—Fayette County, Road District No. 1, is reported to vote Jan. 15 on \$100,000 bonds to construct roads. Address County Comms.

Tex., Lockhart—Caldwell County, J. F. Ellis, County Judge, has \$250,000 available for road improvements; date of opening bids not yet fixed; Engr., W. O. Washington, Lockhart. Bonds lately noted voted. (See Machinery Wanted—Road Roller, etc.)

Tex., Meridian—Bosque County, Road District No. 7, is reported to have voted \$40,000 bonds to construct roads. Address County Comms.

Tex., Orange—City is reported to vote on \$25,000 bonds to improve streets. Address The Mayor.

Tex., Matador—Motley County, A. B. Crane, County Judge, lately noted to have \$3000 State appropriation to construct Highway No. 4 from Wellington, 8 mi. north, advises has \$250,000 bonds available; will open bids in spring on gravel roads with clay foundation.

Tex., Orange—City will vote Jan. 22 on \$25,000 bonds for street improvements. Address The Mayor.

Tex., Vernon—Comms. Court, Wilbarger County, Road Dist. No. 1, will construct 8 mi. concrete road when bonds are sold; \$150,000 to be then available; Engr., J. B. Nabers, Vernon. (In Dec. noted as voting bonds.)

Tex., Waxahachie—Ellis County, Road District No. 10, is reported to have voted \$40,000 bonds to construct roads. Address County Comms.

Tex., Wharton—Wharton County, Road District No. 3, voted \$60,000 bonds to construct roads. Address County Comms.

Va., Staunton—Augusta County, R. W. Moore, Supl., let contract to local contractor to construct 6 mi. 12-ft. water-bound macadam, surface-treated; grading and macadam; \$40,000 available. Bids were noted in December. (See Machinery Wanted—Cement; Oil.)

**SEWER CONSTRUCTION**

Ala., Anniston—City, C. W. Cooper, City Engr., asks bids for Jan. 21 to construct 10 and 15-in. sanitary sewers in West Anniston; present contract about \$12,000; other contracts to follow. (See Machinery Wanted—Sewer Construction.)

Ky., Owensboro—City, John C. Calhoun, Mayor, asks bids until Jan. 24 to construct 9 to 120-in. Eastern outfall sewer in tunnel about 6000 ft. long; and 78 to 120-in. Western outfall sewer in tunnel or open cut about 5800 ft. long; sewers to be of brick, cement, clay segment or concrete segment block; E. B. Shifley, City Engr. (Lately noted to cost above \$40,000. (See Machinery Wanted—Sewer Construction.)

Okla., Miami—F. W. Wright will extend sewer system from Miami to Miami Heights; 2000 ft. 10-in. and 12,000 ft. 8-in. pipe; bids opened Jan. 8; cost, including extension of water mains, \$32,000; Hughes Engineering Co., Engr., 310 Bank of Commerce Bldg., Tulsa, Okla. (Supersedes recent item.)

Tex., Waco—City voted \$225,000 bonds to purchase site and construct sewage-disposal plant and laterals; P. Trevino, Constl. Engr., P. O. Box 281, San Antonio, Tex. (Lately noted to vote.)

Va., Richmond—Administrative Board let contract A. W. Manard of Richmond to construct number of small connecting sewers in northern section and to connect with Bacon Quarter sewer; cost \$10,300; Board plans to soon let contracts to construct branch sewer in Lee District, west of Lombardy St., to cost about \$50,000. Chas. E. Bolling, City Engr.

**SHIPBUILDING PLANTS**

Ga., Darien—Wooden Schooners.—Darien Shipbuilding Co. organized; Robt. Manson, Pres.; F. H. MacFarland, V.-P.; J. S. Downey, Secy.-Treas.; each of Darien; T. S. Lawrence, Gen. Mgr., Brunswick, Ga.; build shipyards; construct wooden 3-mast schooners of 500 tons net register; capital \$250,000.

Ga., Port Wentworth—Concrete Ships.—Liberty Shipbuilding Co., Boston, Mass., plans to establish yards for constructing concrete ships of 3000 tons capacity with hourly speed of 11 knots; Max Schollman, representing company, registered at Hotel Savannah, Savannah, Ga.

Miss., Pascagoula—Steel Ships.—International Shipbuilding Co. will install additional new machinery costing \$150,000; ordered this equipment.

N. C., Southport—Monolithic Ships.—Wm. H. Garland, 404 Dock St., Wilmington, N. C., advises Manufacturers Record: No corporation connected with establishment of my shipyard and ultimately steel works; location on natural deepwater harbor on Carolina Coast; build Garland system monolithic vessels. (Previously noted.)

Tex., Houston—Houston Shipbuilding Co. chartered with \$20,000 capital by A. D. Boice, Sam G. Hines and J. M. McGranahan.

**TELEPHONE SYSTEMS**

La., Barataria Bay—Bureau Yards and Docks, Navy Department, Washington, D. C., opens bids Jan. 21 to construct two 125-ft. steel towers on concrete and timber pile foundations; 12,000-gal. water tank; dormitory building 19x53.6 ft., and receiving building 9x25 ft.; both wood frame, 1-story on timber pile foundation, including equipment and furniture; water, electric light and power and sewerage systems at Naval Radio Station; drawings and specifications No. 2686 obtainable. (See Machinery Wanted—Towers, Tanks, etc.)

Mo., Kansas City—Bell Telephone Co. let contract Swenson Construction Co. of Kansas City to erect exchange and office building; 14 stories; 200x250 ft.; steel and reinforced concrete; concrete floors; estimated cost \$1,500,000, exclusive of equipment; H. F. Holt, Archt., 315 E. 10th St., Kansas City. (Noted in October.)

Okla., Medford—Medford & Northwestern Telephone Co., capital \$1000, incptd. by O. V. Williams, E. G. Costner and J. F. O'Connor.

Va., Rosslyn—Chesapeake & Potomac Telephone Co., 5 Light St., Baltimore, Md., has plans by McKenzie, Voorhees & Gimelin, 1123 Broadway, New York, for telephone exchange; 1 story; brick.

**TEXTILE MILLS**

La., New Orleans—Hosiery.—National Hosiery Mills, 2801 Chartres St., erecting 90x60 and 40x40-ft. mill-construction building; Moise Goldstein, Archt.; has 90 knitting machines; daily capacity 1000 doz. prs. hose.

N. C., Lincolnton—Cotton Products.—Arrow Mfg. Co. chartered with \$300,000 capital by J. H. Separk of Gastonia, N. C., and associates; purchased Daniel Cotton Mills.

N. C., Oxford—Hosiery.—Hemshaw Hosiery Mills will be established by Henry M. Shaw; ordered machinery for knitting half-hose; cost of machinery \$10,000; initial capacity 240,000 prs.; occupy 78x40-ft. brick building, with concrete floor, ample side and sky lights.

N. C., Taylorsville—Hosiery.—Adams Hosiery Mills organized; R. A. Adams, Prop.; A. L. Adams, Mgr.; has 30 knitters, 2 sewers, etc., manufacturing women's hosiery; will add new machinery.

Tex., Houston—Absorbent Cotton, etc.—Texas Textile Co., Frederick Wide, Mgr., 1111 Union Bldg., has plans and specifications for construction 1-story 200x60-ft. reinforced concrete and hollow mill building; bids until Jan. 7; plans installation machinery with daily capacity 2000 lbs. absorbent cotton and 1000 lbs. artificial silk. (Previously noted organized with \$250,000 capital, etc.)

**WATER-WORKS**

Mo., St. Louis—Service Water Co., capital \$35,000, incptd. by Thos. F. Leahy, Jos. F. Murphy and Harry L. Langau; operate and maintain water-works pumping stations, etc.

N. C., Highfalls—Highfalls Manufacturing Co. plans to construct water system to include concrete or steel tanks with piping. (See Machinery Wanted—Tanks; Piping.)

Oklahoma, Cyril—City voted \$20,000 bonds to construct water-works. Address The Mayor. (Lately noted to vote.)

Okl., Guthrie.—City, G. C. Anderson, City Clerk, will construct following, an extension and water supply, to cost \$200,000; capacity 3,000,000 gals.; 24-in. reinforced concrete flow line, 3 mi.; impounding reservoir, 200,000,000 gals. capacity; filtration plant; new booster pumps; date of opening construction bids not set; plans by Benham Engineering Co., Coleord Bldg., Oklahoma City. (Lately noted.)

Okl., Harfshorne. — City voted \$17,500 bonds to improve water-works. S. Aldridge, City Clk.

Okl., Indiana.—City Council authorized \$15,000 bonds to construct water-works. Address The Mayor.

Okl., Kingfisher.—City is reported as contemplating vote on bonds to improve water-works. Address The Mayor.

Okl., Miami.—N. F. Wright will extend water system from Miami to Miami Heights; pipe line only; water furnished by city; bldgs opened Jan. 8; cost, including extension of water mains, \$32,000; Hughes Engineering Co., Engr., 310 Bank of Commerce Bldg., Tulsa, Okla. (Supersedes recent item.)

Okl., Woodward.—City voted \$7000 bonds to construct water-works. Address The Mayor. (Lately noted to vote.)

S. C., Columbia.—Water Dept., F. C. Wyse, Engr.-Supt., arranged for fund for improvements to water-works, primarily to develop additional water-power in power canal; cost about \$100,000.

Tex., Brady.—City voted \$25,000 bonds to construct water-works. Address The Mayor.

Tex., Fort Worth.—City will construct additional filters at water filtration plant; 1 additional rapid sand filters, each with capacity of 1,250,000 gals. per 24 hrs.; piping and control equipment connected thereto; 2 wash-water waste detention tanks; extension of present filter gallery building; laying pipes, sewers, conduits, etc.; City Commissioners receive bids until Jan. 22; John H. Gregory, Comstt. and Designing Engr., 170 Broadway, New York; J. C. Lord, Commr. of Water-works. (See Machinery Wanted—Filter Plant.)

Tex., Port Arthur.—City, John W. Tyron, Mayor, let contract to H. W. Cardwell to construct 8 mi. 6 and 12-in. cast-iron mains and 60 fire hydrants; all material supplied; H. M. Maire, City Engr. (Bids lately noted.)

Tex., Port Arthur.—Port Arthur Light & Power Co. contemplates installing water-treating plant; cost \$16,000.

W. Va., Keyser.—City defeated \$35,000 bonds to increase water supply. Address The Mayor. (Lately noted to vote.)

W. Va., Wheeling.—City contemplates installing water-works pumping station; C. B. Cooke, City Engr.

#### WOODWORKING PLANTS

Ark., Batesville—Staves and Heading.—Mt. Olive Stave Co. will erect building 66x100 ft., ordinary mill construction, costing \$3500, to replace burned structure; plans by J. N. McCord, Batesville; construction by company; install tight-barrel stave and heading machinery, costing \$8000; purchased all material and equipment. (Lately noted to rebuild.)

Ky., Louisville.—Woodenware.—Wm. Kopp Co., capital 25,000, Incpd., by Wm. Kopp, S. E. Hinzen and Nora Kaiser.

N. C., Siler City—Pails and Tubs.—Gregson & Dorsett investigating with view of manufacturing lard tubs and candy pails. (See Machinery Wanted—Cooperage Equipment.)

N. C., Wilmington—Handles.—J. C. Selby of Cleveland, Ohio, leased property on water front; will remodel existing buildings and machinery for handle factory; operate 2 mills.

Tex., Brownsville—Woodworking.—Brownsville Wood Co., capital \$1000, Incpd., by E. C. King, N. A. Tamm, G. W. Lyle and others.

Va., Bassett—Furniture.—Bassett Furniture Co. will rebuild plant reported burned at loss of \$300,000.

Va., Richmond—Woodworking.—Allaire Woodworkers Corp., capital \$225,000, chartered; Alex. Konta, Prest., New York; Murray M. McGuire, Secy., Richmond.

#### FIRE DAMAGE

Ala., Birmingham.—M. D. Tynes' residence; loss \$5000.

Ala., Crichton.—J. H. Miles' residence, 25 Item Ave.; Mrs. J. M. Coleman's residence, 27 Item Ave.; residence at 23 Item Ave., owned by Mobile Female Benevolent Society; total loss \$3000 to \$5000.

Ala., Cullman.—People's Drug Store; G. W. Hanlin's building.

Ala., Mobile.—Wm. O'Connor's residence.

Ala., Montgomery.—Miss Annie Chandler's residence at 229 Sayre St.; loss \$5000.

Ala., Oxford.—Dr. J. P. Hawkins' residence.

Ala., Wylam.—Dwellings of Harry Lee, George Taylor, A. G. Lusk, Tom Marshall and John Jayne; loss \$20,000.

Ark., Newport.—Sol Helnemann's residence.

Ark., Piggott.—M. U. Stowell's 3 buildings.

Ark., Pine Bluff.—Mann-Tankersley Drug Co.'s building; loss \$2000; J. H. Mann, Prest.

Ark., Texarkana.—Mrs. Kate B. Shilling's residence; loss \$7000.

Fla., Hastings.—Residence of Fred. Flake, Prest. Hastings Auto & Supply Co.; loss \$4000 to \$6000.

Fla., Jacksonville.—Michael Sabel's residence 618 Laura St.

Fla., Lakeland.—Atlantic Coast Line Railway Co.'s passenger station; loss \$10,000; J. E. Willoughby, Chief Engr., Wilmington, N. C.

Fla., Madison.—First Methodist Church; loss \$15,000 to \$20,000. Address The Pastor.

Fla., Tampa.—City Transfer Co.'s storage warehouse; loss \$12,000; John Sherman, Gen. Mgr.

Ga., Buena Vista.—McCrory Hotel, owned by Mrs. Kate McCrary, loss including furnishings, \$13,000; Buena Vista Patriot Office, loss \$5000; J. E. Moore & Co.'s store, loss \$5000; Geo. R. McCrary Dry Goods Co.'s building, loss \$5000; Rogers Opera House; all buildings owned by J. S. Rogers, Doyle, Ga.

Ga., Jonesboro.—School building; loss \$18,000. Address District School Trustees.

Ca., Stone Mountain.—Stone Mountain Bank, J. O. Norris, Prest.; loss \$3000; buildings of J. S., W. T. and J. F. McCurdy; city jail and city blacksmith shop (address The Mayor).

Ga., Toccoa.—G. M. Smith's dwelling.

Ky., Franklin.—Simpson County Bank; loss \$4000; J. Presley Waldron, Prest.; T. L. Neely, Cashier.

Ky., Lexington.—Criterion Cafe, owned by Kearns & Brandt and occupied by J. Spencer; loss \$10,000 to \$15,000.

Ky., Lexington.—Matthew Walton's residence; loss \$7000.

Ky., Louisville.—Frame kitchen adjoining Willard Hotel; loss \$3000 to \$4000; D. R. Lindsey, Mgr.

Ky., Martin.—Mose Miller's residence on Beaver Creek.

Ky., Maud.—Dr. J. N. Sheehan's residence.

Ky., Newport.—T. E. Hamilton & Co.'s warehouse.

Ky., Oneida.—Oneida Institute's girls' orphanage.

Ky., West Point.—Sherman Wright's residence.

La., New Orleans.—Jas. C. Turner's residence; loss \$5000.

Md., Baltimore.—Michael Kirsch's garage at 7 E. Hill St.; loss \$25,000.

Md., Baltimore.—Harry Busche's residence, 1708 E. Federal St.; Chas. W. Miller's residence, 1706 E. Federal St.; Chas. McCauley's residence, 1702 E. Federal St.

Md., Baltimore.—Wm. Kermode's laundry at 205 Frederick Ave.; building was owned by Theo. Lydecker, 2913 Frederick Ave.

Md., Baltimore.—Grayson E. Bruner's residence, 3103 Westwood Ave., Walbrook; loss \$2000.

Md., Bloomington.—T. B. Wilt's residence and warehouse, owned by Kaulbaugh Estate.

Md., Boonsboro.—Dr. J. Hubert Wade's residence; loss several thousand dollars.

Md., Cambridge.—Edward Willey's residence and Oscar Keene's residence, both structures owned by Howard Wilson; loss \$2000.

Md., Frostburg.—Irwin E. Gilbert's studio, loss \$2000; Street's bakery, owned by John M. Street, Cumberland, Md.

Md., Hagerstown.—Wm. H. Howard's residence; loss \$12,000.

Md., Holbrook (R. D. from Owings Mills). Joseph A. Blair's residence; loss \$2000.

Md., Lutherville.—Residence of Beckman O. Rouse, Prest. of Maryland College for Women; loss \$10,000.

Md., Mt. Washington.—John Dirzuweit's residence, 9 Belvidere Terrace; loss \$10,000.

Md., St. Helena.—Maryland Swimming Club's clubhouse and dancing-pavilion at Dundalk; loss \$20,000.

Mis., Booneville.—West Side Booneville High School; loss \$25,000. Address School Trustees.

Miss., Canton.—Canton Oil Mill; loss \$80,000.

Miss., Corinth.—W. T. Adams Machine Co.'s plant; loss \$200,000.

Miss., Greenville.—Mrs. Lizzie Thomas' residence; loss \$3500.

Miss., Beulah.—W. E. Courson's store; T. C. Bond's store building; Sam Baskind's building.

Miss., Sardis.—Bending.—Carrier Lumber & Manufacturing Co. will rebuild bending plant reported burned at loss of \$35,000.

Miss., Sardis.—Carrier Lumber & Mfg. Co.'s bending plant; loss \$35,000.

Miss., Starkville.—Self Creek Consolidated School, 12 mi. from Starkville; loss \$3000; H. D. Stewart, Principal.

Mo., Glasgow.—Building occupied by St. Mary's Parochial School and Knights of Columbus; loss \$10,000.

Mo., Waco.—Butte-Kansas Mining Co.'s mill; loss \$75,000; E. A. Wiltsee, Mgr.

N. C., Asheboro.—Chairs.—Randolph Chair & Mfg. Co., capital \$125,000, Incpd., by C. C. Cranford, Virgil Preswell and A. D. Cranford.

N. C., Burlington.—Building of Williamson Co., Inc.; Covington Hardware Co.'s building, owned by N. C. Cardway; loss, including contents, \$150,000 to \$200,000.

N. C., Candler.—Dormitory at Pisgah Institute.

N. C., Charlotte.—Buckeye Cotton Oil Co.'s seed warehouse; estimated loss \$100,000.

N. C., Charlotte.—Laboratory and operating buildings at Camp Greene base hospital; loss on apparatus probably \$35,000; Maj. A. B. Kaempfer, Camp Quartermaster.

N. C., Concord.—O. C. Bost's residence in No. 9 township.

N. C., Hamlet.—Building owned by R. E. Hinson and R. S. Ledbetter; loss \$7500.

N. C., Hickory.—D. J. Sox's residence.

N. C., Sedalia.—Commissary Hall at Palmer Memorial Institute; loss \$7000; Charlotte Hawkins Brown, Principal.

N. C., Washington.—Pamlico Chemical Co.'s offices and storage warehouse; Jonathan Havens' storage warehouses; loss estimated at \$50,000.

Okla., Douthat.—Master's New York Store; Morrison Mercantile Co.'s store; The Leader, owned by L. Price; Poole Barber Shop; Chezam Bros.' tailor shop; Koonrad's Cafe; Anderson Shoe Co.'s building; Conrad & Sons' store; Stella Baum Mercantile Co.'s store, and several small buildings; total loss \$50,000.

Okla., Duthat.—Master's New York Store; Morrison Mercantile Co.'s store; The Leader, owned by L. Price; Poole Barber Shop; Chezam Bros.' tailor shop; Koonrad's Cafe; Anderson Shoe Co.'s building; Conrad & Sons' store; Stella Baum Mercantile Co.'s store, and several small buildings; total loss \$50,000.

Okla., Newberry.—W. E. Sorg's bakery.

Tenn., Ripley.—Johnson Bros.' store, loss \$23,000; W. M. Roberson's store, loss \$7500; A. Klutts' residence, loss \$3500; Dr. J. A. Porter's residence, loss \$3500.

Tenn., Nashville.—Alf Levine's barn and several outhouses; loss \$2000.

Tenn., Nashville.—Mrs. Jas. M. Whitworth's dwelling, near Nashville; loss \$7000.

Tex., Alvin.—Gus Henry's farm residence.

Tex., Belton.—W. A. Messer's farm residence in Mustang Valley near Belton; loss \$2000.

Tex., Brownwood.—Roy Harryman's residence on Greenleaf St.

Tex., Bryan.—Building owned by Mrs. Lillian Austin Perkins, McKinney, Tex., and occupied by First National Bank and others; loss \$15,000.

Tex., Cleburne.—Jim Hughes' residence, 202 Hillsborough St.

Tex., Cleburne.—Rectory of St. Joseph's Catholic Church occupied by Rev. Father O'Brien; loss \$4500.

Tex., Comanche.—Sparks Bldg., loss \$4000.

W. Va., Mason Town.—Valley District High School; loss \$5,000. Address The Mayor.

W. Va., Moundsville.—Frank H. Blake's 3 buildings.

W. Va., Northfork.—Harry Totz's department store, loss on building and contents \$100,000; Northfork Drug Store, loss \$3000; S. M. Nelson's store, loss \$5000; Brooks Bros.' store and Busy Bee Restaurant, both buildings owned by L. G. Toney, loss \$15,000.

W. Va., Ridgeley.—Methodist Episcopal Church (address The Pastor); Dr. Kyle Cowherd's residence.

W. Va., Welch.—McCrary & Johnson's building; Welch Furniture Co.'s store and other buildings; loss \$75,000 to \$100,000.

W. Va., Wheeling.—Barn at Waddington Farm, owned by Earl W. Oglebay, State Food Administrator.

## BUILDING NEWS

### BUILDINGS PROPOSED APARTMENT-HOUSES

Md., Baltimore.—Monument Place Apartment Co. has plans by E. H. Glidden, Garrett Bldg., Baltimore, to remodel and erect addition to residence at 704 Cathedral St. for apartment-house; cost \$9000. (Previously noted.)

Odd Fellows' Bldg., loss \$5500; Lamb Hotel, loss \$1000.

Tex., Elmo.—Buildings of B. Brazzell, F. H. Bonnett and R. L. Jobe; loss \$10,000.

Tex., Fort Worth.—W. S. Jarratt's apartment-house; loss \$3600.

Tex., Galveston.—Mrs. Geo. Q. McCracken's residence.

Tex., Gainesville.—Landsay Hotel; loss \$2000.

Tex., Harrisburg.—F. S. Glover's residence.

Tex., Haskell.—M. O. Lyle's garage; loss \$5000.

Tex., Jarrell.—Jarrell Enterprise Office, postoffice and several other buildings; loss \$7500.

Tex., Kirbyville.—Frank Nowlin's residence.

Tex., Merkel.—Elite Confectionery, building owned by C. S. Field, Fort Worth, Tex., loss \$2000; J. O. Hamilton's building; W. S. Tedford's building; John Sears' building; total loss \$5000.

Tex., Milford.—George Wray's residence; loss \$3000.

Tex., Orange.—Orange County Irrigation Canal Co.'s pumping plant No. 2.

Tex., Pearsall.—W. N. McClendon's residence.

Tex., San Marcos.—Mrs. L. B. Mathews' residence; loss \$10,000.

Tex., Stamford.—L. L. Toop's residence; loss \$4000.

Tex., Texarkana.—W. A. Hargett's residence; loss \$5000 to \$6000.

Tex., Waco.—Mrs. J. Eikel's residence; loss several thousand dollars.

Tex., Franklin St., near Seventh; loss \$10,000.

Tex., Waco.—Weathered Transfer & Storage Co.'s building; owned by Mrs. H. Behrens; loss \$20,000.

Va., Bassett.—Bassett Furniture Co.'s plant; loss \$300,000.

Va., Hopewell.—Prince George Hotel; Cutprice Clothing Store.

Va., Norfolk.—Monticello Hotel, owned by Monticello Realty Co., Chas. H. Consolvo, Prest. and Gen. Mgr., loss \$750,000; Dickson buildings, loss \$53,000; Lenox Bldg., loss \$60,000; Carpenter Bldg., loss \$45,000; Tazewell Bldg., loss \$5000; double apartment-house occupied by J. J. Callahan and D. O. Shipp.

Va., Pulaski.—General Chemical Co.'s warehouse; loss \$10,000.

Va., Roanoke.—W. L. Craft's residence, 1007 Chapman Ave., S. W.

Va., Sutherlin.—H. O. Kerns' residence; loss \$10,000.

Va., The Plains.—The Plains Electric Light Co.'s electric-light and power-plant; J. L. Howard's garage; W. D. Van Horn's residence.

Va., Port Norfolk.—(P. O. at Portsmouth). Firemen's Hall, owned by Norfolk County Address County Commiss.

W. Va., Charleston.—Tom Short's residence at Kanawha Two-Mile.

W. Va., Clarksburg.—Hand Window Glass Co.'s plant.

W. Va., Mason Town.—Valley District High School; loss \$5,000. Address The Mayor.

W. Va., Moundsville.—Frank H. Blake's 3 buildings.

W. Va., Northfork.—Harry Totz's department store, loss on building and contents \$100,000; Northfork Drug Store, loss \$3000; S. M. Nelson's store, loss \$5000; Brooks Bros.' store and Busy Bee Restaurant, both buildings owned by L. G. Toney, loss \$15,000.

W. Va., Ridgeley.—Methodist Episcopal Church (address The Pastor); Dr. Kyle Cowherd's residence.

W. Va., Welch.—McCrary & Johnson's building; Welch Furniture Co.'s store and other buildings; loss \$75,000 to \$100,000.

W. Va., Wheeling.—Barn at Waddington Farm, owned by Earl W. Oglebay, State Food Administrator.

January 10, 1918.]

## MANUFACTURERS RECORD.

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Okl., Tulsa.—J. D. Simmons will erect \$10,000 rooming-house.

W. Va., Cabin Creek.—Bank of Cabin Creek suspended operations on apartment, bank and store building indefinitely. (See Bank and Office.)

## ASSOCIATION AND FRATERNAL

Fla., Tampa.—Tampa Cigarmakers' Union will erect Labor Temple.

Ga., Americus.—B. P. O. E. postponed erection of lodge building to cost \$25,000; Chas. H. Burke, Chrgn. Building Com. (Previously noted.)

La., New Orleans.—National Order of Elks is considering erecting hospital. (See Hospitals.)

La., New Orleans.—B. P. O. E. is having plans and specifications prepared by Harry L. Moses, New Orleans, for interior equipment and furnishings of Elks Home under construction, to cost \$75,000, including furnishings complete, draperies, lockers, gymnasium, etc.; will call for bids; building 3 stories; 100x100 ft.; concrete frame; brick walls; asbestos roof; Bedford stone trim; terra-cotta front; steam heat; general contract let to John Thatcher & Son, 60 Park Ave., Brooklyn, N. Y., at \$285,280; Toledoano, Wogan & Bernard, Archts., Title Guarantee Bldg., New Orleans. (Other contracts previously noted.)

S. C., Charleston.—National Y. W. C. A. War Council, Emma Hays, Special Supervisor, New York, will erect building at navy yard to include dormitory, recreational hall with stage equipment and cafeteria; steam heat; cost \$40,000 to \$50,000.

## BANK AND OFFICE

Ga., Stone Mountain.—Stone Mountain Bank will erect building to replace structure noted damaged by fire at loss of \$3000.

La., New Orleans.—Pan-American Insurance Co. acquired site, 80x170 ft., and will erect building; construction not to begin for several months.

Ga., Townsend.—Bank being organized by W. G. Wyson, Mgr. of Georgia Land & Live Stock Co., and others, will erect bank building. (See Machinery Wanted—Bank Fixtures; Safes; Vaults.)

Okl., Hennessey.—Farmers and Merchants' National Bank plans to erect bank building.

Okl., Tulsa.—Owner of Kennedy Bldg. will erect structure to replace building lately noted damaged by fire at loss of \$10,000; hydraulic pressed brick and terra-cotta.

Okl., Tulsa.—National Bank of Commerce will erect 1-story bank building at Main and Third Sts.

Tex., Beaumont.—Wilson Hardware Co. is having plans prepared by Babin & Beck, Beaumont, to remodel offices.

Tex., Orange.—First National Bank is having plans prepared by C. H. Page & Bro., Austin, for improvements to bank and office building.

Tex., Orange.—Geo. E. Holland will erect business building. (See Stores.)

Tex., San Antonio.—National Bank of Commerce plans to erect building to cost about \$300,000. Bank wires Manufacturers Record: "All bids rejected; uncertain at present as to future plans."

Va., Roanoke.—Norfolk & Western Ry. is reported to remodel Stratford Hotel for offices.

Va., South Boston.—Boston National Bank will erect bank building.

W. Va., Cabin Creek.—Bank of Cabin Creek suspended building operations on bank, store and apartment building indefinitely; fireproof and burglar-proof; W. H. St. Clair, Archt., Charleston, W. Va.; cost \$25,000. (Previously noted.)

## CHURCHES

Ga., Atlanta.—Jackson Hill Baptist Church will erect building to replace structure previously noted damaged by fire. Address The Pastor.

Md., Baltimore.—University Baptist Church, Willoughby M. McCormick, Chrmn. Building Comm., Pratt and Concord Sts., receives competitive plans Feb. 25 for erection of building at Charles and 36th Sts. (Previously noted.)

structure to conform with surrounding buildings; church building proper to cost \$140,000; Sunday-school, \$35,000; following architects invited to submit plans: Chas. W. Bolton & Son, Witherspoon Bldg., Philadelphia; John Russell Pope, 527 5th Ave., and Hobart B. Upjohn, 456 4th Ave., both of New York; Theodore Wells Pletsch, American Bldg., and Wyatt & Nolting, Keyser Bldg., both of Baltimore; R. H. Hunt, Chattanooga; Coolidge & Carlson, 89 State St., Boston; M. A. Long, Assoc. Engr., Baltimore & Ohio Bldg., Baltimore. (Previously noted.)

Mo., Rolla.—Christian Church will erect \$25,000 structure to replace building recently destroyed by fire. Address The Pastor.

Okl., Marietta.—Baptist Church will erect building. Address The Pastor.

Ola., Perry.—Presbyterian Church plans to erect building. Address The Pastor.

Tex., Lubbock.—Methodist Church will erect building; cost \$25,000. Address The Pastor.

Va., Ringgold.—Baptist Church has plans by H. L. Cain, Richmond, for church and Sunday-school building; 65x82 ft.; frame; slate roof; wood floors; probably private gas or electric-light plant; cost \$9000; hot-air heat, about \$400; bids opened about Feb. 28; construction begins about March 1. Address architect. (Previously noted.)

W. Va., Dunbar.—Bream Church contemplates erection of building. Address The Pastor.

## CITY AND COUNTY

Ark., Harrison—Home.—Boone County opens bids and lets contract Feb. 3 to erect home for poor; 125x23 ft.; brick; slate roof; wood floors; Honeywell or Continental vacuum heating system. Address N. A. Freezing, County Judge. (Previously noted.)

Ark., Murfreesboro.—Jail.—Pike County has plans by Witt, Seibert & Co., Texarkana, Ark., for jail; brick and reinforced concrete; tin roof; reinforced concrete and ordinary construction; date opening bids not set. Address T. W. Rountree, Judge, Murfreesboro. (Previously noted.)

Fla., St. Augustine—Jail Cell.—Obe P. Goode, County Clerk of St. Johns County, receives bids until Feb. 12 to construct steel cell in St. John's County Jail; specifications furnished by bidder; A. H. Faver, Chrmn. (See Machinery Wanted—Steel Cell.)

Ga., Macon.—Auditorium.—City will at present lay foundations, build 2 end walls of permanent structure and connect with 2 temporary walls of auditorium; cover with temporary roof; present structure to seat 4000; cost \$3500; plans for permanent building to seat 6500 will be prepared at once by Alexander Blair, Macon; estimated cost \$325,000. (Previously noted to vote on additional bonds and to have let contract to W. J. Beeland, P. O. Box 445, Macon, to enlarge proposed auditorium.)

Miss., Hattiesburg—Jail.—City will erect addition to jail. Address The Mayor.

Mo., Joplin.—City Offices.—City will remodel market-house for city offices; concrete construction; gravel roof; concrete floors; cost \$3500; heating plant, \$5000; A. C. Michaelis, Archt., Joplin. Address J. F. Lee, Commr. Pub. Properties and Pub. Utilities. (Previously noted.)

Okl., Bristow—City Hall, etc.—City will erect city hall, fire and police station; 40x80 ft.; 2 stories and basement; brick and stone; wood joists; composition roof; wood doors; city electric lights; bids opened Jan. 10; construction begins about Feb. 10. Weathers & Trapp, Archts., 1006 Campbell Bldg., Oklahoma City. Address P. H. Weathers, 1006 Campbell Bldg., Oklahoma. (Previously noted.)

Okl., Cherokee—Jail.—County Comrns. are considering erecting jail.

Tenn., Nashville—Stable.—Board of Commissioners receives bids until Jan. 4 to repair West Nashville stable of Street Cleaning Dept.; plans and specifications at office Commr. of Water-works, Street Cleaning and Workhouse; Wm. Gupton, Mayor; J. W. Dashell, Secy.

Tex., Houston—Hospital.—City will erect building for tubercular sanitarium; 135x15 ft.; light-frame construction; sparkproof ready roofing; wood floors; cost \$5000; Maurice J. Sullivan, Archt., City Hall, Houston. (Previously noted.)

Tex., Waco.—Jail.—McLennan County plans to erect addition to jail; about 31x59 ft.; brick, concrete and steel; concrete and steel floor construction; Manton Hannah, Archt., Waco; no definite action for 30 to 60 days. (Previously noted.)

## COURTHOUSES

Ala., Decatur.—Morgan County will expend \$9000 to \$8000 to repair courthouse; slate roof; reinforced concrete floors; bids opened Jan. 9; construction begins Feb. 1. Address Comrns. Court. (Lately noted.)

Fla., Leesburg.—Lake County Comrns. will construct brick lavatory in connection with courthouse.

Miss., Corinth.—Alcorn County Supervisors, O. M. Hinton, Chancery Clk., have plans by N. W. Overstreet, Majestic Bldg., Jackson, Miss., for courthouse; 122x86 ft.; fireproof; reinforced concrete, face brick, terra-cotta, ornamental plaster, ornamental and structural iron work; composition roof; reinforced concrete floors; steam heat; bids opened about March 1; cost \$90,000, without mechanical equipment; plans ready for bidders about Feb. 15. (Lately noted.)

## DWELLINGS

Ala., Mulga.—Sloss-Sheffield Steel & Iron Co., Birmingham, will not erect employees' residences. (Lately noted to have let contract to erect 40 dwellings.)

Ark., Texarkana.—W. A. McCartney will erect 5-room stucco bungalow to be occupied by Sam L. Sowards

D. C., Washington.—D. J. Dunigan, 203 Bond Bldg., will erect dwelling, 2154 Florida Ave. N. W.; brick; cost \$10,000.

D. C., Washington.—Foxall Heights Co., 710 14th St. N. W., will erect dwelling, 4416 P St. N. W.; cost \$3500.

Fla., Miami.—R. H. Berg will erect concrete block residence; cost \$3000.

Fla., St. Augustine.—Wm. Taylor, Wilmington, Del., is reported to erect residence at Crescent Beach.

Fla., St. Augustine.—James Martin, Wilmington, Del., is reported to erect residence at Crescent Beach.

Fla., St. Petersburg.—A. T. Squires will erect 2 residences in North Shore subdivision; 2 stories; cost \$2500 each; Edgar Fardon, Archt., St. Petersburg.

Fla., Winter Haven.—W. L. Haskins will erect residence.

Ga., Atlanta.—Mrs. Ivey Buehl will erect 2-story brick-veneer duplex dwelling; cost \$3500.

Ga., Atlanta.—H. W. Nichols has permit to erect 2-story brick-veneer dwelling on Springdale Road; tile roof; 10 rooms; cost \$14,000.

Ga., Atlanta.—A. H. Bailey will erect 1-story brick-veneer dwelling, 228 N. Jackson St.; also 2-story duplex dwelling of 10 rooms on Mansfield St.; cost \$4500. (Lately noted in part.)

Ga., Valdosta.—A. J. Carpenter will remodel residence on North Patterson St.

Ky., Lexington.—J. H. Adams will erect 7-room frame cottage; cost \$3000.

Ky., Peebles Valley.—C. A. Calvert will let contract to A. B. M. Singer, Peebles Valley, to erect dwelling; 2 stories; 8 or 10 rooms; frame or concrete; asbestos roof; hardwood floors; cost \$5000 to \$7000; electric wiring \$250; construction begins by Feb. 10. (Lately noted damaged by fire.)

Md., Baltimore.—Frank O. Singer, Jr., 600 Equitable Bldg., purchased site 172.6x167 ft. on west side of Calvert St., near 31st, and will probably erect number of dwellings; has plans by Wm. B. Gerwig, 1028 N. Fulton Ave., for 3 dwellings on Chauncey Ave. near Eutaw Place and 18 on Brookfield Ave. and Chauncey Ave.; 2 and 3 stories; brick; slate roof; hardwood floors; steam heat.

Md., Cambridge.—Howard Wilson will probably in the spring rebuild 2 residences noted damaged by fire.

Md., Sparrows Point.—Bethlehem Steel Co. postponed erection of 1500 dwellings indefinitely. (Lately noted.)

Okl., Bartlesville.—Bartlesville Home Building Co. has plans by L. H. Babcock, Bartlesville, for one hundred 5 and 6-room residences; frame; asphalt shingle roof; hardwood floors; cost \$2250 to \$3000; date opening bids not set; construction begins in spring. Address owner.

Okl., Enid.—J. S. Graham will erect residence; 2 stories; brick; 40x42 ft.; 9 rooms; cost \$25,000; materials include mat-face brick, Carthage stone and marble, terra-cotta tile roofing, oak flooring, fireproofing, hot-water heating plant, etc. R. W. Shaw, Archt., Enid.

Okl., Oklahoma City.—W. J. Stone will erect 1-story frame residence; cost \$2000.

Okl., Oklahoma City.—E. H. Highfill will erect 1-story frame dwelling; cost \$2500.

Okl., Oklahoma City.—C. E. Huffman will erect six 1-story frame residences and 2 garages; cost \$19,750.

Okl., Oklahoma City.—H. D. Garrison will erect 2-story frame residence; cost \$6000.

Okl., Tulsa.—A. McCracken will erect residence; cost \$3000.

Okl., Tulsa.—Farmer & Wirt will erect \$3000 residence.

Okl., Tulsa.—H. K. Suave will erect \$3500 residence.

Okl., Tulsa.—R. A. Tress will erect \$4000 residence.

Okl., Tulsa.—R. A. Adams will erect residence; cost \$3500.

Tex., Beaumont.—E. E. Eastham is having plans prepared by Babin & Beck, Beaumont, for residence; 2 stories; hollow tile with stucco finish; steam heat.

Tex., San Antonio.—Dobrowolski & Stieren will erect two 5-room dwellings; cost \$2000.

Va., Roanoke.—W. L. Craft, P. O. Box 476, has plans by G. H. Ragan, Roanoke, for residence to replace structure noted damaged by fire; 2 stories; brick; metal shingle roof; hardwood floors; electric wiring; cost \$4500; heating \$100; bids opened about Feb. 1. Address Doris & Stephenson, Roanoke.

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## GOVERNMENT AND STATE

Ark., Little Rock.—Hospital.—War Department, Washington, D. C., will expend \$50,000 to convert 9 buildings at Fort Logan H. Roots into general hospital. (See Hospitals.)

Fia., Tampa—Camp.—War Dept., Washington, D. C., is receiving bids to erect 33 buildings for army convalescent hospital and reconstruction camp at Plant Field; probably lease 2d floor of Park View Apartments in connection with hospital; Maj. Edgar W. King, Surgeon General's Office, Washington, may be addressed.

N. C., Barataria Bay—Dormitory, Receiving Buildings, etc.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., opens bids Jan. 21 to construct two 125-ft. steel towers on concrete and timber-pile foundations, 12,000-gal. water tank, dormitory building 19x53.5 ft., receiving building 19x25 ft.; two latenter structures wood frame; 1 story; timber-pile foundation, including all equipment and furniture; water, electric-light and power sewerage systems at Naval Radio Station; drawings and specifications (No. 2686) on application to Bureau of Yards and Docks, New Orleans, La.

N. C., Azalea—Hospital.—War Dept., Washington, D. C., will establish tuberculosis sanatorium. (See Hospitals.)

N. C., Charlotte—Camp.—War Dept., Washington, D. C., will erect additional barracks at Camp Greene to accommodate about 7000 men; cost about \$200,000; Porter & Boyd, Charlotte, in charge of construction; Maj. A. B. Kaempfer, Camp Quartermaster.

Va., Mt. Vernon—Cantonment.—Quartermaster-General's Department, Washington, D. C., will erect army wooden cantonment to accommodate 25,000 men; construction under supervision of Solomon-Norcross Co., Atlanta, Ga.

## HOSPITALS, SANATORIUMS, ETC.

Ala., Cullman.—Dr. S. W. Welch of State Health Dept., Montgomery, Ala., is interested in erection of tuberculosis sanatorium; will first erect building for administrative purposes.

Ark., Little Rock.—War Department, Washington, D. C., will expend \$50,000 to convert 3 brick barracks and 6 wooden structures at Fort Logan H. Roots into general hospital to accommodate 1000 soldiers; Lieut-Col. Geo. Juenemann in charge.

Fla., Tampa.—War Dept., Washington, D. C., is receiving bids to erect buildings for convalescent hospital and reconstruction camp at Plant Field. (See Government and State.)

Ga., Lafayette.—Board of Roads and Revenue of Walker County receives bids through John L. Rowland, Clerk, to construct hospital at County Poor Farm; plans and specifications at office Mr. Rowland.

Ky., Lexington.—Fayette County District Board of Tuberculosis Sanatorium Trustees, T. A. Combs, Chrmn., receives bids until Jan. 12 for erection, heating and plumbing of administration building at Blue Grass Sanatorium; plans and specifications at office of Sanatorium and L. K. Frankel, Archt., Lexington. (Lately noted.)

La., Alexandria.—Louisiana Baptist Convention Executive Board will erect sanatorium; 4 stories; concrete; fireproof; 40x90 ft.; reinforced concrete; gravel roof on concrete; reinforced concrete floors; vapor

steam heat; Otis automatic elevator; cost \$70,000; Clarence King, Archt., Shreveport, La.; bids opened Feb. 1; construction begins March 1. Address R. P. Mahon, Alexandria. (Lately noted.)

La., New Orleans.—National Order of Elks is considering erecting hospital; Edward Rightor, Past Grand Exalted Ruler, New Orleans, may be addressed.

Miss., Meridian.—Matty Hersce Hospital Trustees, J. A. Bailey, Prest., is considering bond issue of about \$35,000 to erect fireproof structure or remodel and enlarge present building. (Previously noted.)

N. C., Azalea.—War Dept., Washington, D. C., will establish tuberculosis sanatorium of 50 buildings, to include administration building, home for nurses, central store, chapels, etc.; 24x160 ft. each; connected by covered passageways; build sewerage system; will take over Kenilworth Inn, to be used in connection with sanatorium; Major E. H. Burns, Surgeon-General's Office, Washington, D. C., may be addressed.

Okl., Oklahoma City.—State Board of Affairs will probably begin erection of \$150,000 hospital in March; Jewel Hicks, Archt., Durant, Okla. (Lately noted.)

Tenn., Nashville.—Tennessee State Board of Control will erect two 2-story dining-hall buildings 52x102 ft., and 3-story hospital building for negroes at Central Hospital for Insane; reinforced concrete; slate roof; reinforced concrete floor construction; steam heat (separate contracts); C. K. Colley, Archt., 307-10 Fourth & First Natl. Bank Bldg., Nashville; bids opened Jan. 10; dining halls to cost \$20,000 each; hospital building \$75,000; bids opened same day to erect fireproof administration building 100x42 ft.; 2 stories and basement; cost \$27,500; wooden tuberculosis hospital building 250x125 ft.; 1 story; cost \$17,500, and 8-room residence; cost \$7500; built-up, composition and slate roofs, respectively; hot-water heat; public lighting; D. W. Southgate, Archt., Stahlman Bldg., Nashville. Address State Board of Control. (Lately noted.)

Tex., Houston.—City will erect building for tubercular sanitarium; 135x15 ft.; light-frame construction; sparkproof ready roofing; wood floors; cost \$5000; Maurice J. Sullivan, Archt., City Hall, Houston. (Lately noted.)

Va., Chase City.—Mecklenburg Springs, Inc., incptd. with \$500,000 capital stock; Dr. C. J. Edwards, Prest., Philadelphia, Pa.; Dr. A. T. Finch, V.-P.; T. A. Broocks, Secy.; Harvey Holloman, Mgr.; all of Chase City; will erect sanitarium; cottage plan; fireproof construction; will receive competitive plans; building proposals opened May 1; later install boilers, piping, heating and bath establishment equipment, laundry, etc., to utilize Mecklenburg medicinal waters; date opening machinery bids not set; acquired and will continue to operate bottling plant. (Lately noted.)

### HOTELS

Fla., Tarpon Springs.—West Coast Hotel Co., incptd. with \$5000 capital by Frank W. and Helen T. Swift, Helen T. and Steven B. Ayres, Leroy Brandon and Chas. R. Knapp.

Fla., St. Petersburg.—St. Petersburg Investment Co., Chas. M. Allen, Trustee, and others will expend \$6000 to improve Southland Hotel on Coffee Pot Bayou.

La., Vinton.—A. Perry is Chrmn. of Building Com. for erection of proposed \$40,000 hotel; E. W. Phillips, Archt., Lake Charles, La.

Miss., Charleston.—Lamb-Fish Lumber Co. will erect hotel and store building; 65 rooms; 2 stories; stucco; composition roof; steam heat; electric wiring; cost \$35,000; construction on percentage basis; construction begins at once; Raymond B. Spencer, Archt., Jackson. (Previously noted.)

Mo., Kansas City.—Standard Building Co. is reported interested in erection of hotel at 1212-20 McGee St.; 12 stories; 400 rooms; construction begins about May 1.

Okl., Duncan.—E. E. Churchill, Fort Worth, Tex., plans to erect hotel.

Okl., Pauls Valley.—F. Pruitt and W. C. Van Hoosier are reported to erect hotel.

Okl., Quay.—J. F. Waymire, Waurika, Okla., will probably erect brick hotel.

Va., Norfolk.—Monticello Realty Co., Chas. H. Consolvo, Prest. and Gen. Mgr., will rebuild Monticello Hotel noted damaged by fire at loss of \$750,000; fireproof construction.

W. Va., Mullens.—Bank of Wyoming will let contract about Feb. 1 to erect bank and hotel to replace burned structure; 7 stories; brick, granite, iron and cement; asbestos roof; wood and tile floors; steam heat; electric lights and elevator; cost \$30,000; G. R.

Ragan, Archt., Roanoke, Va. (See Bank and Office.)

### MISCELLANEOUS

Ark., Pine Bluff—Library.—Pine Bluff Library Association plans to erect \$75,000 library building; Mrs. C. W. Pettigrew, Prest.

D. C., Washington—Home.—Chesapeake & Potomac Telephone Co., D. S. Porter, District Mgr., 722 Twelfth St., will erect home at 14th St. and Spring Road for additional employees.

Ky., Louisville.—Club.—Woman's Club, Mrs. H. W. Blanc, Prest., will erect clubhouse to replace structure lately noted damaged by fire at loss of \$40,000.

Md., Baltimore—Studio.—John T. Selby and James Scott, 323 W. Lexington St., leased store at 116 W. Lexington St., and will improve for studio.

N. C., Winston-Salem—Cafe.—Owner of Phoenix Cafe will expend \$4000 to remodel interior, install new fixtures, etc.

Okl., Oklahoma City.—Amusement Park.—Oklahoma Railway Co., John W. Shartel, V.-P. and Gen. Mgr., took over Belle Isle Amusement Park and will improve; plans include enlargement of bath pavilion and bathhouse, improvements to theater, laying of 12 or 16-in. pipe, etc.

Okl., Sand Springs—Home.—Charles Page, Tulsa, will erect building at Sand Springs Home for Girls; 225 ft. long; 3 stories and basement; also erect building for boys.

Tenn., Bristol—Barn.—W. C. Godsey will erect barn to replace structure lately noted damaged by fire; 52x65 ft.; wood frame; galvanized iron roof; concrete floors; electric lights from farm plant; cost \$2000; bids opened April 1; construction begins April 15.

W. Va., Northfork—Restaurant.—L. G. Toney & Co. have plans by Pedigo & Garry, Bluefield, W. Va., for restaurant building for Joe Hammond to replace structure noted damaged by fire; 25x50 ft.; brick; Barrett specification roof; concrete and wood floors; stoves; electric lights; concrete sidewalks; date opening bids not set; cost \$12,000. Address L. G. Toney.

### RAILWAY STATIONS, SHEDS, ETC.

Ky., Paducah.—Nashville, Chattanooga & St. Louis Railway, Hunter McDonald, Chief Engr., Nashville, will erect freight depot; also erect temporary passenger station.

Mo., Kansas City.—Upper House of Common Council passed over mayor's veto, ordinance previously passed by Lower House, granting permission to Interurban Central Station Co., Howard E. Huselton, financial agent, Waldheim Bldg., to erect union passenger terminal station at 10th and McGee Sts.; about 208x132 ft.; 6 stories; construction to permit erection of 4 additional stories; site and building to cost about \$2,000,000. (Previously noted.)

Okl., Sapulpa.—St. Louis & San Francisco Rwy., F. G. Jonah, Chief Engr., St. Louis, will erect 2-story structure to replace general office building lately noted damaged by fire.

Va., Roanoke.—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., Roanoke, is reported to remodel interior of Stratford Hotel for offices.

### SCHOOLS

D. C., Washington.—Notre Dame School for Girls, North Capitol and K Sts., is having plans prepared by F. G. Pierson, Washington Loan & Trust Bldg., Washington, for 2-story building; cost about \$100,000.

Ga., Atlanta.—Lanier University will begin construction of university buildings by May; plans include erection of 12 structures; Colonial style; architect agreed upon, but not selected. Address C. Lewis Fowler, Prest. (Previously noted.)

Ga., Mt. Airy.—City voted \$7000 bonds to erect brick school building; J. T. Peyton, Mayor.

Ga., Thunderbolt.—Georgia State Industrial College, R. R. Wright, Prest., is having plans prepared by Henry Wallin, 23 Abercorn St., Savannah, for building to replace Meldrim Hall lately noted damaged by fire; plans include auditorium, president's office, recitation-room and 9 classrooms; 2 stories; cost \$50,000 to \$100,000.

N. C., Sedalia.—Palmer Memorial Institute will erect building; Charlotte Hawkins Brown, Principal.

Okl., Chandler.—School Board will probably call vote on bonds to erect school.

Okl., Covington.—School Board plans to issue \$20,000 bonds to erect school.

Okl., Oklahoma City.—State has plans by Jewel Hicks, Duran, Okla., for medical school; estimated cost \$200,000.

Okl., Madill.—School Dist. No. 30, G. F. Huebsch, Clerk, will erect 2-story frame school.

Okl., Pauls Valley.—Pauls Valley School Dist. is reported considering election on \$50,000 bonds to erect high school. Address Dist. School Trustees. (Lately noted.)

Tenn., Columbia.—University of Tennessee, Knoxville, will establish Middle Tennessee experiment station; erect administration buildings, barns, fences, construct roads, etc.; \$100,000 appropriation; Prof. C. A. Moores, University of Tennessee, may be addressed. (Lately noted.)

Tenn., Memphis.—City Board of Education will erect open-air school building; frame; Regan & Weller, Archts., Bank of Commerce Bldg., Memphis; bids opened.

Tenn., Loudon.—City School Board will erect high school.

Tex., Bynum.—Board of Education will have plans prepared by T. J. & J. O. Galbraith, Dallas and Hillsboro, Tex., for school; cost \$22,000.

Tex., Crockett.—School Trustees will erect \$60,000 building; C. H. Page & Bro., Austin, and Jones & Tabor, Houston, Archts.

Tex., Orange.—City votes Jan. 22 on \$100,000 school bonds; Geo. W. Curtis, Secy. School Board.

Tex., San Marcos.—State has plans by C. H. Page & Bro., Austin, Tex., and opens bids Jan. 14 for normal school building; concrete; Barrett specification roof; cement and wood floors; cost \$80,000. (Lately noted.)

Va., Bristol—King College, Rev. Tilden Sherer, Prest., contemplates erecting building; cost \$150,000.

Va., Mt. Crawford.—Town will erect school building. Address The Mayor.

### STORES

Ala., Birmingham.—Johnston Bros. Dry Goods Co. is reported to erect store building.

Ark., Little Rock.—Schmelzer & Schay will erect 3-story brick building; cost \$25,000.

Miss., Charleston.—Lamb-Fish Lumber Co. will begin construction of hotel and store building at once; plans by Raymond B. Spencer, Jackson, Miss., call for 2-story structure; 85 rooms; stucco; composition roof; steam heat; cost about \$35,000. (See Hotels.)

N. C., Asheville.—Northup-McDuffle Hardware Co. will erect 4-story store building and 3-story warehouse; rough-face brick; concrete foundation; plate-glass front; electric elevator; cost, including site, \$100,000; construction begins in spring.

Okl., Drumright.—T. L. Gibbs plans to erect business building.

Okl., Olustee.—J. G. Glenn will erect building to replace burned structure.

Tenn., Bristol.—J. Gutman will remodel building on W. State St. for store.

Tex., Lubbock.—Green & Mayfield will erect business building; cost \$19,000.

Tex., Orange.—Geo. E. Holland has plans by Babbin & Beck, Beaumont, Tex., for 2-story business building; 80x150 ft.; first floor for 5 stores; second story, offices.

Tex., San Antonio.—Wm. Appmann plans to expend \$40,000 to rebuild business building.

Tex., San Antonio.—Burns Estate plans to erect store building for Washer Bros.; cost \$75,000.

Tex., San Antonio.—G. C. A. Halff plans to erect \$50,000 business building.

### BUILDING CONTRACTS AWARDED

#### APARTMENT-HOUSES

Ga., Atlanta.—J. B. Bowen, Kirkwood, Ga., has plans by and let contract to T. M. York of T. M. York & Co., Atlanta, to erect 2-story brick-veneer apartment house; 4 six-room suites; tar and gravel roof; steam heat; electric lights; cost \$15,000.

Okl., Bartlesville.—A. F. & A. M. let contract to A. L. McGregor, Bartlesville, to erect store, lode and office building; 8 stories; 100x140 ft.; reinforced concrete; asphalt roof; concrete floors; cost \$300,000; Walter Everman, Archt., Bartlesville. (See Association and Fraternal.)

Okl., Picher.—J. N. Greening let contract to C. W. Bucy, Picher, to erect Miners' State Bank Bldg. at 2d and Main Sts.; 2 stories; 25x120 ft.; concrete blocks; cost \$800. (Lately noted.)

Okl., Miami.—Baird T. Hainer and A. B. James let contract to King Construction Co. to erect building for bank, 2 stories and offices; 75x120 ft.; reinforced concrete; composition roof; wood floors on concrete; city lighting; cost \$100,000; Ideal heating plant, \$8500; elevators, about \$5000; foundation com-

Va., Norfolk.—Portlock Estate, owner of Carpenter Bldg., W. W. Vicar, Representative, will rebuild structure noted damaged by fire at loss of \$45,000.

Va., Norfolk.—Lowenberg Corporation, owners of Lenox Bldg., will rebuild structure noted damaged by fire at loss of \$60,000.

W. Va., Cabin Creek.—Bank of Cabin Creek suspended operations on store, bank and apartment building indefinitely. (See Bank and Office.)

W. Va., Northfork.—L. Kaufman will erect building to replace burned structure.

W. Va., Northfork.—L. G. Toney & Co. have plans by Pedigo & Garry, Bluefield, W. Va., for department-store building for Brooks Bros. to replace structure noted damaged by fire; 4 stories; 25x60 ft.; brick, concrete and iron; Barrett roofing; concrete and wood floors; steam or hot-water heat; electric lights; concrete sidewalks cost \$15,000 date opening bids not set. Address L. G. Toney.

### THEATERS

Md., Baltimore.—Herbert M. Hartmen is having plans prepared by E. H. Glidden, Garrett Bldg., Baltimore, for moving-picture theater in Northwest Baltimore; 1 story; ornamental brick; 60x14 ft.

Mo., Joplin.—Owen Hughes, Prest. Hughes-O'Rouke Construction Co., Dallas, Tex., is reported interested in plans to erect \$100,000 theater; seating capacity 2000.

Mo., Kansas City.—N. J. Flynn, E. E. Richards and associates will erect Twelfth Street Theater.

Tenn., Chattanooga.—Signal Amusement Co. will erect Liberty Theater on Broad St.; height of 4-story structure; fireproof; steel and concrete throughout; seating capacity about 2100; cost \$40,000 to \$50,000; R. H. Hunt, Archt., Chattanooga; also remodel Rialto Theater for moving-picture theater at cost of about \$20,000.

### WAREHOUSES

N. C., Asheville.—Northup-McDuffle Hardware Co. will erect 2-story warehouse. (See Stores.)

N. C., Tarboro.—Ruffin Warehouse Co. incorporated with \$100,000 capital by J. C. Ruffin, H. C. Bridges and R. B. Hyatt.

N. C., Tarboro.—Clark Warehouse Co. incorporated with \$100,000 capital by W. H. Clark, Geo. A. Holderness and W. D. Leggett.

S. C., Florence.—Southern Cotton Oil Co. is reported to rebuild seedhouse noted damaged by fire.

Tex., Houston.—Josey-Miller Co. will erect grain warehouse 150x200 ft.

Tex., Waco.—Peyton Randle will be president of company being organized with \$250,000 capital to erect bonded warehouse; fireproof; considering establishing cold-storage department in connection. Mr. Randle wires Manufacturers Record: Plans for warehouse incomplete as yet.

Va., Danville.—Durham Tobacco Storage & Inspection Co. incptd. with \$50,000 capital by A. B. Carrington, Prest.; L. N. Dibrell, Secy., both of Danville.

Va., Danville.—Kinston Storage Warehouse Co. incptd. with \$25,000 capital by R. L. Dibrell, Prest.; H. L. Boatwright, Secy., both of Danville.

Va., Norfolk.—Norfolk Warehouse Corporation increased capital from \$60,000 to \$1,000,000. (Lately noted.)

Va., Norfolk.—Seaboard Storage Co. incptd. with \$100,000 capital by J. H. Cofer, Prest., Norfolk; V. W. Emory, Larchmont, Va.

pleted; J. W. Roberts, Archt., Miami, may be addressed. (Previously noted.)

#### CHURCHES

Ga., Cuthbert.—Methodist Church let contract to C. C. Hays, Cuthbert, to erect building; 40x70 ft.; slate roof; cost \$16,000; T. F. Lockwood, Archt., Columbus, Ga. (Lately noted.)

S. C., Yorkville.—Beersheba Congregation let contract to W. T. Beaman, Yorkville, to erect \$3000 structure.

Va., Graham.—Church of Christ's Disciples will erect church and Sunday-school building; 87x100 ft.; church to seat 540; Sunday-school (2 classrooms) 250; stone and brick; slate or asbestos shingles and composition roof; wood floors; cost \$25,000; 1-pipe system of steam heat, about \$2000; electric lights, about \$400; H. L. Cain, Archt., Richmond; Mr. Barker, Graham, in charge of construction; Buena Vista Slag Products Co., Buena Vista, Va., contractor for brick; construction begins about March 1. Address architect.

#### CITY AND COUNTY

Ark., Little Rock.—Board of Public Affairs let contract to Johnson & Dickerson, Little Rock, to erect fire station at 15th St. and Pike Ave.; brick. (Previously noted.)

N. C., Lumberton—Town Hall, etc.—Town let contract to W. M. Burney, to erect lately-noted building for City Treasurer's office, town hall and fire department; 50x50 ft.; 2 stories; brick and concrete; slate roof; concrete floors; cost \$2000; lighting \$100; L. L. Hunter, Archt., Charlotte, N. C. Address Ira B. Townsend, Lumberton. (See Machinery Wanted—Hardware.)

#### COURTHOUSES

N. C., Lexington.—Davidson County Commissioners let contract, exclusive of heating and plumbing, to D. K. Cecil, Lexington, to remodel courthouse; build gallery, install opera chairs, refinish interior and exterior, provide 4 rooms in basement, remodel offices on first floor, install steam-heating system, etc. (Lately noted.)

#### DWELLINGS

Ala., Montgomery.—Bernard Frank let contract to Greeson Construction Co., 1121 Bell Bldg., Montgomery, to repair burned residence, lately noted; 10 rooms; frame; composition shingle roof; quartered white oak flooring; steam heat; city lights; cost \$7000; Frederick Ausfeld, Archt., Montgomery. Address contractor. (See Machinery Wanted—Heating.)

Fla., St. Petersburg.—A. C. Chadwick let contract to J. A. Kohler, St. Petersburg, to erect bungalow; 5 rooms and bath; cost \$2000.

N. C., Asheville.—Wm. J. Bryan, Lincoln, Neb., let contract to G. W. Wrenn & Co., to erect residence; 8 rooms; frame; stone foundation and basement; composition shingle roof; fireproof floors on first floor; remainder wood; hot-water heat; cost \$12,000; Smith & Carrier, Archts., Asheville. (Previously noted.)

Tex., Fort Worth.—Vance Muse, 1936 Fifth Ave., let contract to J. A. Medley, Fort Worth, to erect 5-room bungalow to replace structure lately noted damaged by fire; frame; shingle roof; wood floors; gas stoves; electric lights.

Tex., San Antonio.—Ben P. Lane, 313 Prudential Life Bldg., let contract to John Westerhoff, San Antonio, to erect residence; 46½x26½ ft.; frame; shingle roof; wood floors; stoves and fireplace; cost \$2750; electric lights, \$50; cement sidewalk, \$50. Address owner. (Lately noted.)

Tex., San Antonio.—Matt A. Berry, 125 River Ave., let contract to John Westerhoff, San Antonio, to erect 7-room residence; cedar shingle roof; maple floors; gas heat; cost \$3750. (Lately noted.)

Tex., San Antonio.—Chas. K. Biggs let contract to John Westerhoff, San Antonio, to erect residence; frame; shingle roof; wood floors; concrete sidewalks. (Lately noted.)

#### GOVERNMENT AND STATE

Ala., Fort Morgan—Cantonment.—Government let contract to Jett-Muths Construction Co., Mobile, to erect 9 cantonment buildings for coast artillery companies, including electric lighting, sanitary, plumbing, drainage, etc.; also to build extension to railroad.

D. C., Washington—Range-finding Tower, etc.—War Department let contract at \$264,042 to Richardson & Burgess, Inc., 1413 H St. N. W., Washington, to construct range-find-

ing tower and reconstructing buildings Nos. 105 and 112.

D. C., Washington—Seamen Gunners' Quarters.—Bureau of Yards and Docks, Navy Dept., F. R. Harris, Chief, let contract, \$148,500, to Sumner-Sollitt Co., Pullman Bldg., Chicago, to construct seamen gunners' quarters at navy-yard; plans include 3-story structure; 185x58 ft.; brick; reinforced concrete, stone and steel. (Lately noted.)

Md., Baltimore—Warehouses.—War Department, Washington, D. C., let contract to Sanford & Brooks Co., Commerce and Water Sts., Baltimore, to erect 4 warehouses at Canton; 400x180 ft. each; reinforced concrete and frame; 1 story; estimated cost \$750,000.

Md., Indian Head—Magazine Buildings and Quarters.—Bureau of Yards and Docks, Navy Department, F. R. Harris, Chief, Washington, D. C., let contract to Austin Company, 1026 Bulletin Bldg., Philadelphia, to erect 2 magazine buildings 60x180 ft. each; brick and steel; ready wood roofing wood floors; concrete base; also 5 sets of quarters; cost of former, about \$80,000; latter, about \$35,000.

Tex., San Antonio—Balloon School.—Missouri Aeronautical Society let contract to McKenzie Construction Co., San Antonio, to erect lecture-room 20x20 ft., garage 20x64 ft. and officers' quarters 20x36 ft. for army balloon school; frame. (Previously noted.)

#### HOSPITALS, SANATORIUMS, ETC.

Tex., Lubbock.—Dr. Ponton, Post, Tex., and Hutchinson & Peebler, Lubbock, let contract to W. H. Bramlett to erect Lubbock Sanatorium.

#### SCHOOLS

Tex., Granbury.—School Board let contract to C. S. Oats, Dublin, Tex., to erect school;

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Alcohol-manufacturing Machinery.**—J. H. Van Zandt, 1612 Southwestern Life Bldg., Dallas, Tex.—Data on converting farm waste into alcohol and prices on machinery. — See Tractors (Farm).

**Bakery Machinery.**—G. H. Morgan, P. O. Box 465, Lourenco Marques (Delagoa Bay), Portuguese East Africa.—Plans for making bread, biscuits and cakes; operated entirely by electricity; ovens electrically heated.

**Bank Fixtures.**—W. G. Wysor, Townsend, Ga.—Prices on safe, vault and other bank fixtures.

**Bathroom Equipment.**—Witham & Griffey, Orient, Iowa.—Twenty bath outfits complete with gas heaters and tanks to be used in \$30,000 apartment-house.

**Batteries (Electric), etc.**—Pedro C. Tornel, Baracoa, Cuba.—Toys; glassware; enameled ware; pottery; cheap plated jewelry; watches, medium and small sizes, but cheap; shoes for boys and girls not to be too durable and consequently very low in price; Franco batteries and pumps.

**Belting and Packing.**—See Steel, Iron, etc.—Panama Canal.

**Boiler.**—Guyan Machine Works, Logan, W. Va.—Boiler. (See Sawmill.)

**Boiler.**—See Planing Mill Equipment.—S. A. Harrington.

**Boilers (High Pressure; Stationary).**—See Structural Steel, etc.—Panama Canal.

**Bridge Construction (Timber).**—Monroe County Commiss., D. Z. Filer, Clerk, Key West, Fla.—Bids until Jan. 31 on 900-ft. timber trestle.—See Road Construction.

**Bridge Construction.**—Hampshire County Court, Office of C. W. Haines, Clerk, Romney, W. Va.—Bids until Jan. 31 for 200-ft. bridge of concrete or iron construction; plans and specifications at Clerk's office and office of Engineering Dept., State Road Com., Morgantown, W. Va.

**Bridges.**—Texas Electric Railway, Dallas, Tex.—Several light steel bridges or bridge material such as deck girders or "I" beams for spans not over 50 ft. in length, loading Coopers E-30.

**Broom Machinery.**—J. W. Gardner, Cash. of Bank of Draper, Draper, Va.—Correspondence with manufacturers of broom machinery.

**Bucket (Clam Shell).**—Mobile Electric Co., Mobile, Ala.—Prices on 1½-yd. or 1½-yd. clam-shell bucket for unloading coal.

**Bucket (Drag Line).**—Southern States Equipment Co., 702 Hennen Bldg., New Orleans, La.—Prices on 4-yd. Page drag line bucket, in good condition.

3 stories; cost about \$25,000; let plumbing contract to Baker Hardware Co., Granbury; David S. Castle, Archt., Abilene. (Lately noted.)

#### STORES

Okl., Bartlesville.—A. F. & A. M. let contract to A. L. McGregor, Bartlesville, to erect store, lodge and office building; 8 stories; 100x140 ft.; reinforced concrete; asphalt roof; concrete sidewalks; cost \$300,000. Walter Everman, Archt., Bartlesville. (See Association and Fraternal.)

Okl., Miami.—Baird T. Hainer and A. B. James let contract to King Construction Co. to erect building for 2 stores, bank and offices; 75x120 ft.; reinforced concrete; composition roof; wood floors on concrete; city lighting; cost \$100,000; Ideal heating plant, \$500; elevators, about \$5000; J. W. Roberts, Archt., Miami, may be addressed. (Previously noted.)

Va., Norfolk.—Dickson Estate, Wm. C. Dickson, representative, let contract to E. L. Myers, Norfolk, to rebuild Dickson Bldg., noted damaged by fire at loss of \$3000.

W. Va., Northfork.—H. Tota will erect building to replace structure noted damaged by fire; Robt. E. Fleshman, Contr., Northfork.

W. Va., Northfork.—L. G. Toney & Co. let contract to J. M. Wiggins, Northfork, to erect temporary structure to replace store

#### WAREHOUSES

Md., Baltimore.—War Department, Washington, D. C., let contract to erect warehouses at Canton. (See Government and State.)

Va., Alexandria.—Alexandria Hay & Grain Co., Inc., let contract to Julian D. Knight, Alexandria, to erect warehouse at Colross; 150x150 ft.; cost \$30,000; W. Leon Clark, Archt., Alexandria.

equipment for cotton picker manufacturing plant.

**Electrical Machinery, etc.**—J. T. Patrick, Southern Pines, N. C.—Prices on water wheels, dynamo, motors, electric-lighting outfit, etc.; good second-hand; for installation Esmeralda, N. C.

**Elevators.**—Treasury Department, Supervising Architect's Office, Washington, D. C.—Bids until Feb. 1 for installation of elevator in each of following buildings: United States postoffice and courthouse extension at Oklahoma, Okla., and United States courthouse, etc. (remodeling), at Austin, Tex., in accordance with the drawings and specifications; copies on application.

**Engine.**—See Planing Mill Equipment.—S. A. Harrington.

**Engine.**—See Sawmill.—Guyan Machine Works, Logan, W. Va.—Engine. (See Sawmill.)

**Engines (Traction).**—See Tractors (Farm).—J. H. Van Zandt.

**Engines (Gasoline, etc.).**—Salem Iron Works, 206 S. Liberty St., Winston-Salem, N. C.—To correspond with manufacturers of 6 H. P. kerosene and gasoline engines, mounted on steel wagon trucks, for use in connection with peanut pickers.

**Filter Plant.**—Major and Board of Commissioners, Fort Worth, Tex.—Bids until Jan. 22 to construct additional filters at water filtration plant; 4 additional rapid-sand filters, each with capacity of 1,250,000 gals. per 24 hours; piping and control equipment connected thereto; 2 wash water-waste detention tanks; extension of present filter gallery building; laying pipes, sewers, conduits, etc.; plans and specifications from F. J. Van Zuben, City Engr., City Hall, Fort Worth, for \$25; plans and specifications on file with John H. Gregory, Consil. and Designing Engr., 170 Broadway, New York; J. C. Lord, Commr. of Water-works.

**Flour Mill Machinery.**—J. G. Tilley Co., Bristol, Va.—Flour mill equipment; all makes; give full description, condition and lowest prices.

**FLOUR-mill Machinery.**—G. H. Morgan, P. O. Box 465, Lourenco Marques (Delagoa Bay), Portuguese East Africa.—Roller mill for making bread mill and flour from wheat or from malz or other kinds of grains; entirely operated by electricity; direct current, 450 volts.

**Furniture (Church).**—T. M. Byrd, Salisbury, N. C.—Prices on church furniture.—See Glass Windows.

**Generator (Electric).**—R. P. Johnson, First National Bank Bldg., Wytheville, Va.—Electric generator; D. C.; 200 K. W.; 250 volts; 500 amperes; 200 R. P. M.; good condition; second-hand; Westinghouse preferred; quote best dealers' price.

**Glassware.**—See Batteries, etc.—Pedro C. Tornel.

**Glass Windows (Art; Leaded).**—T. M. Byrd, Salisbury, N. C.—Catalogs and prices on art and leaded-glazed windows for church building; also prices on furniture and asbestos curtains.

**Graphite-refining Machinery.**—J. R. Malaney, care of Metropolitan Hotel, Birmingham, Ala.—Addresses of manufacturers of graphite-refining machinery for classifying and refining concentrates as it comes from mines and reducing mills, thereby making high carbon commercial product.

**Grinders (Drill).**—Navy Department, Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish drill grinders (wet tool and power vibrating device); Schedule 1651, delivery South Charleston, W. Va.

**Hardware.**—See Machinery, etc.—Lee J. King.

**Hardware.**—See Structural Steel, etc.—Panama Canal.

**Hardware, etc.**—T. R. Diamond & Co., 151 Broadway, Madras, India.—Hardware; tires; tubes; rubber goods; sundry lines of metals; stationery, and all sorts of novelty goods.

**Hardware.**—Ira B. Townsend, Treasurer, Lumberton, N. C.—Bids on hardware for \$2000 building for town hall, etc.

**Heating.**—Greasen Construction Co., 1121 Bell Bldg., Montgomery, Ala.—Prices on heating plant for residence.

**Insulating Materials.**—Bureau Supplies and Accounts, Navy Department, Washington, D. C.—Bids until Jan. 8 for delivering heat insulating materials at navy-yard, Brooklyn, N. Y., etc.; apply for proposals to supply officer, navy-yard, Brooklyn, or to Bureau.

**Kilns (Dry).**—S. A. Harrington, Harrington Bros., Weldon, N. C.—Prices on dry-

kiln, 15,000 to 25,000 ft. capacity. (See Planing Mill Equipment.)

**Locomotive.**—McCoy Brick & Tile Co., Augusta, Ga.—Prices on small standard-gauge locomotive for clay pit.

**Lumber.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish basswood, cedar, cypress, maple, oak, pine and poplar lumber, schedule 1643, delivery Philadelphia.

**Machine Tools.**—Riverside Machinery Depot, 19 St. Aubin Ave., Detroit, Mich.—Boring mills; radial drills; large lathes; milling machines; planers; slab millers; Jones & Lamson lathes; other big tools.

**Machinery, etc.**—Lee J. King, 2239 at 21 Park Row, New York, representing Sam-palo Correa & Boettcher of Rio de Janeiro. To represent manufacturers of machinery, hardware, paints and oils.

**Metals.**—See Hardware, etc.—T. R. Diamond & Co.

**Mining.**—Oseuma Lead & Zinc Co., R. S. Simmons, Prest., Henryetta, Okla.—Data as to cost per average foot on drilling with 6-in. drill for lead and zinc.

**Mining Machinery (Lead and Zinc).**—Carter Lead & Zinc Co., W. A. Sanders, Prest., Carter, Okla.—Prices on mining machinery.

**Molder.**—S. L. Williams, 708 E. 5th St., Charlotte, N. C.—Prices on second-hand 7 or 10-in. molder.

**Motors (Electric).**—Columbian Peanut Co., Norfolk, Va.—Price on 2 new 40 H. P. motors; 3 phase, 60 cycle, 220 or 440 volts, about 700 R. P. M., alternating current; immediate delivery.

**Nails.**—See Tobacco, etc.—Baccara & Smadja.

**Oils.**—See Machinery, etc.—Lee J. King.

**Oil (Road).**—R. W. Moore, Supt., Augusta County, Staunton, Va.—Prices on hot and cold road oil for surface treatment; about 50,000 gal. 650 specifications.

**Oil (Linseed).**—Navy Department, Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 5000 gals. boiled linseed oil, Schedule 1648, delivery Norfolk.

**Paints.**—See Machinery, etc.—Lee J. King.

**Peanut Machinery.**—J. R. Hodges, 119 Heinman St., San Antonio, Tex.—Prices on machinery for shelling, roasting and blanching peanuts.

**Piping.**—Highfalls Mfg. Co., Highfalls, N. C.—Piping for water system.

**Planer.**—S. L. Williams, 708 E. 5th St., Charlotte, N. C.—Prices on second-hand light pony planer.

**Planing Mill Equipment.**—S. A. Harrington, Harrington Bros., Weldon, N. C.—Equipment for planing mill, for roofers and timbers up to 6-in. thick; capacity 25,000 ft. daily; include edger and trimmer; circular saw, for lumber 12 in. or wider; engine and boiler; drykiln of 15,000 to 25,000 ft. capacity.

**Pottery.**—See Batteries, etc.—Pedro C. Tornel.

**Pumps.**—See Batteries, etc.—Pedro C. Tornel.

**Pump.**—Roy C. Whayne Supply Co., 318 W. Main St., Louisville, Ky.—10 or 12-in. used, belt-driven centrifugal pump for sand and gravel work.

**Pumps (Centrifugal).**—See Structural Steel, etc.—Panama Canal.

**Rail.**—Adrian-Hampton Coal Co., A. S. Lindsey, Secy., Adrian, W. Va.—Prices on light rails, 20-lb.

**Refrigerating Apparatus.**—See Steel, Iron, etc.—Panama Canal.

**Road Construction.**—Monroe County Commissioners, D. Z. Filer, Clerk, Key West, Fla.—Bids until Jan. 31 on 40 mi. road; Stock Island, Key West, Big Pine Key and Key Largo Roads; plans, specifications and blue prints at office County Commrs., Court House; construction includes 900-ft. timber trestle.

**Road Construction.**—Crosby County Commissioners, Pink L. Parrish, County Judge, Crosbyton, Tex.—Bids until Jan. 10 to construct East Plains or Blanco Canyon Road, Precinct No. 2; plans and specifications from Henry E. Elrod, Engr., 505 Interurban Bldg., Dallas or Crosbyton, for \$10 deposit.

**Road Machinery.**—G. H. Morgan, P. O. Box 465, Lourenco Marques (Delagon Bay), Portuguese East Africa.—Data and prices on equipment for building and maintaining roads.

**Road Roller, etc.**—J. T. Ellis, Caldwell County Judge, or W. O. Washington, Engr., Lockhart, Tex.—Prices on road roller and rock crusher.

**Rubber Products.**—See Hardware, etc.—T. R. Diamond & Co.

**Safe.**—See Bank Fixtures.—W. G. Wysor.

**Sawmill.**—Guyan Machine Works, W. H. Oliver, Jr., Prest., Logan, W. Va.—Estimates on band mill complete, with boiler and engine.

**Sewer Construction.**—City of Anniston, Ala., C. W. Cooper, City Engr.—Bids Jan. 21 to construct 10 and 15-in. sanitary sewers in West Anniston; amount about \$12,000.

**Sewer Construction.**—City of Owensboro, Ky., J. H. Hickman and Henry Cline, Commissioners.—Bids until Jan. 24 to construct Eastern outfall sewer in 6000-ft. tunnel, sewer sizes 8 to 120 in., and Western outfall sewer in tunnel or open cut 5500 ft. long, sewer sizes 78 to 120 in.; brick, cement, clay segment or concrete segment block sewers; plans and specifications obtainable from E. B. Shifley, City Engr., for \$10.

**Sewing Machines, etc.**—Rojas & Perdomo, Neiva, Colombia.—To represent manufacturers of: Sewing machines; typewriters; textiles for wearing apparel and other domestic purposes; writing materials; ornaments; novelties; toilet goods; furniture; haberdashery for men and women; toys and similar trifles.

**Steel Buildings.**—Gulf Machine Works, Pensacola, Fla.—Prices on second-hand steel buildings suitable for machine shop, foundry and storehouse; about 25,000 sq. ft. floor space required; submit blue prints and prices.

**Steel Cell.**—Obie P. Goode, St. John's County Clerk, St. Augustine, Fla.—Bids until Feb. 12 to construct steel cell in St. John's County Jail; specifications furnished by bidder.

**Steel, Iron, etc.**—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Bids until Jan. 24 to furnish steel, iron, wire, steel cable, nails, oil-burning ranges, refrigerator doors, dish-washing machines, electric griddles, refrigerator, kitchen equipment and kitchen utensils, aluminum kettles, food trucks, equipment for oil-burning oven, deck bunks, metal lockers, refrigerating apparatus, taps, asbestos packing, leather belting and packing, cotton sheeting, blank books, pencils, paper, cotton waste, sperm oil, zinc oxide and white zinc; blanks, etc., relating to circular (No. 119) obtainable at this office or offices Asst. Purchasing Agents, 24 State St., New York; Audubon Bldg., New Orleans, and Fort Mason, San Francisco; also from United States Engr. Offices in principal cities throughout United States.

**Structural Steel, etc.**—Panama Canal, A. L. Flint, Gen. Purchasing Officer, Washington, D. C.—Bids until Jan. 17 to furnish structural steel, centrifugal pumps and water level indicator, high-pressure stationary boilers, chain blocks, tackle blocks, snatch blocks, flush pipe, soil pipe, pipe dies, tender hose, hose nozzles, rubber balls for tank valves, bronze door catches, hinges,街灯, torches, counter scales, earthware kitchen utensils, sink strainers, belt lacing hooks, carpet tacks, steel tapes, street lamps, engine packing, flags and template paper; blanks, etc., relating to circular (No. 119) obtainable at this office or offices Asst. Purchasing Agents, 24 State St., New York; Audubon Bldg., New Orleans, and Fort Mason, San Francisco; also from United States Engr. Offices in principal cities throughout United States.

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**Tank Cars.**—Henry Lautz, General Sales Agent, Pioneer Oil Refining Co., 417 Park Row, Bowling Green, Ky.—Addresses of builders of tank cars for gasoline; also addresses of parties having used tank cars for sale.

**Tanks (Concrete or Steel).**—Highfalls Mfg. Co., Highfalls, N. C.—To correspond with erectors of concrete or steel tanks for water system.

**Tires.**—See Hardware, etc.—T. R. Diamond & Co.

**Tobacco, etc.**—Baccara & Smadja, No. 8 Rue des Faneurs, Tunis, Africa.—To represent manufacturers of: leaf tobacco; footwear; sole leather; hides and skins; confectionery; bonbons; condensed milk; nails; tacks; sewing needles for hand and machine.

**Tools (Metal and Woodworking).**—J. A. Whitaker, Hillsboro, N. C.—Prices on tools for manufacturing mechanical toys, boys' wagons, etc.—See Toys' Materials, etc.

**Toys' Materials, etc.**—J. A. Whitaker, Hillsboro, N. C.—Prices on materials, supplies and tools for manufacturing mechanical toys, boys' wagons, etc.

**Towers, Tanks, etc.**—Bureau Yards and Docks, Navy Department, Washington, D. C.—Bids until Jan. 21 for constructing two 125-ft. steel towers on concrete and timber pile foundations; 12,000-gal. water tank; dormitory building 19x53.6 ft., and receiving building 9x25 ft.; both wood frame, 1-story on timber-pile foundation, including all equipment and furniture; water, electric light and power, and sewerage systems at Naval Radio Station, Barataria Bay, La.; drawings and specification (No. 286) on application to Bureau or to commandant of Naval Station, New Orleans.

**Tractors.**—Josh R. Jones, care Crowley Motor Car Co., Crowley, La.—Catalogues and jobbers' prices on oil-gas tractors.

**Tractors (Farm).**—J. H. Van Zandt, 1612 Southwestern Life Bldg., Dallas, Tex.—Correspondence with manufacturers of tractors for farm use; especially interested in tractors designed for burning alcohol, the alcohol to be made from farm products.

**Typewriters.**—Rojas & Perdomo, Neiva, Colombia.—To represent manufacturers of typewriters.

**Valves.**—Bureau Supplies and Accounts, Navy Department, Washington, D. C.—Bids until Jan. 15 for delivering valves at navy-yard, Boston; apply for proposals to supply officer, navy-yard, Boston, or to Bureau.

**Vault.**—See Bank Fixtures.—W. G. Wysor.

**Water-main Construction.**—Board Commissioners, Frank A. Dolan, City Clerk, Jersey City, N. J.—Bids until Feb. 5 to construct water main under Hackensack and Passaic rivers; specifications on file office of City Clerk; forms, etc., obtainable office of Chief Engr., City Hall.

**Water Wheels.**—J. T. Patrick, Southern Pines, N. C.—Prices on water wheels.—See Electrical Machinery, etc.

**Water-works.**—See Tanks.—See Piping.—Highfalls Mfg. Co.

**Well-drilling (Oil).**—Kentucky Land, Gas & Oil Co., J. D. Stone, Prest., 4 Arcade Bldg., Norfolk, Va.—Estimates on drilling oil well 2000 to 3000 ft. in Carter County, Va.

**Wire (Bell).**—Navy Dept., Bureau Supplies and Accounts, No. 607, Washington, D. C.—Bids to furnish 400,000 ft. plain bell wire, schedule 1639, delivery Mare Island.

**Woodworking Machinery.**—See Planer.—See Molder.—S. L. Williams.

**Woodworking Machinery.**—See Cooperage Equipment.—Gregson & Dorsett.

the Virginian Railway's shop tracks at Princeton and Haley; Chisholm & Morris of Charlottesville, Va., are sub-contractors on the work. H. Fernstrom, Norfolk, Va., is Chief Engr.

## STREET RAILWAYS

Ga., Atlanta.—Georgia Railway & Power Co., P. S. Arkwright, Prest., proposes to double-track part of its line to Camp Gordon.

Fla., Miami.—Miami Traction Co. contemplates building line between Miami and Miami Beach. J. R. Tatum and others interested.

Ga., Columbus.—Columbus Railroad Co., it is reported, will reconstruct about 2 mi. of line. J. F. Flournoy and others of Columbus are directors.

## FINANCIAL NEWS

### FINANCIAL CORPORATIONS

Ala., Carrollton.—The Pickens County Bank of Carrollton, capital \$60,000, is chartered. J. E. Bell and others are the organizers.

Ala., Opp.—American Bank & Trust Co. of Opp., capital \$50,000, is chartered. T. E. Henderson, Fox Henderson and others are interested.

Ark., Little Rock.—The Army Bank of Camp Pike has been organized by banks in the Little Rock clearing-house, and is reported to have begun business. Camp Pike is near Little Rock. Capital \$25,000; surplus \$5000. Ed. Cornish, Prest.; W. L. Hemingway, Vice-Prest.; Celus P. Perrle, Secy.; J. T. Hammond, Jr., Cashier.

Ark., Marked Tree.—First National Bank, succeeding Bank of Marked Tree, is chartered; capital \$25,000.

Ga., Rome.—Floyd Abstracting Co. publishes petition for charter; capital stock \$5000, which may be increased to \$50,000. L. H. Covington is Atty. for the company and he, with John L. Harris and O. P. Willingham, are the petitioners.

Ga., Townsend.—W. G. Wysor, Mgr. of the Georgia Land & Live Stock Co., is said to be organizing a new bank which will be chartered to begin business about July 1, 1918; capital \$25,000.

N. C., Charlotte.—Mechanics Mutual Insurance Co. is chartered; authorized capital \$125,000. Incp'ts.: A. L. Smith, W. C. Wilkinson, J. H. Wear, A. C. Summerville and others.

N. C., Raleigh.—The City Bank, capital \$25,000, which will later be increased to \$100,000, has begun business. Directors: John T. West, Prest.; Victor C. Moore, Dr. W. A. Withers and John A. Allen, V.-Ps.; R. G. Allen, Cashier, and R. T. Uzzle.

Okl., Madill.—City National Bank has changed its name to Guaranty State Bank, leaving the national system. No change in officers or directors.

Okl., Tulsa.—Citizens State Bank, capital \$125,000; surplus \$25,000; has begun business. Davies Bowen, Prest.; F. C. Moore, W. D. Hall, M. J. Glass and H. L. Standeven, V.-Ps.; H. L. Probst, Cashier; K. E. Heim, Asst. Cashier.

Okl., Watonga.—Farmers' National Bank, capital \$25,000, has applied for charter.

Tenn., Memphis.—Farmers' Mutual Life Insurance Co. of Shelby County is incptd. by E. B. Ellis, S. B. Goodloe, W. R. Bryan, W. D. Yarbrough, J. D. Ellis and W. R. Anderson.

Tex., Houston.—The Morris Plan Bank, which it is proposed to organize in Houston, is to have \$100,000 capital, which may later be raised to \$200,000. Definite action is expected this month. E. A. Peden and others are interested.

### NEW SECURITIES

Ark., Arkansas City—(Auditorium).—An election is reported authorized on \$75,000 city auditorium bonds. Address City Commissioners.

Ark., Fort Smith—(Paving).—Bids will be received until 2 P. M. Jan. 15 for \$10,500 of 6 per cent. bonds of Paving District 14. Maturity serially until 1928. W. F. Blocker is Secy.

Ark., Little Rock—(Street).—All bids reported rejected for the \$76,500 of 6 per cent. street improvement bonds lately offered, and

(Continued on Page 80.)

# Vigorous, Red-Blooded American Optimism Should Rule the Day



**W**ILL see America tested in the crucible of service and sacrifice—will call upon its men and women—aye, and children, for the supreme effort to prove their red-blooded determination that this country and the world shall be saved for civilization—to manifest their heart-faith in the unbeatable boys “over there” by doing their utmost to strengthen our soldiers to overcome speedily and completely the blood-stained hosts of the Kaiser.

For 1918 will see the sons of those that wore the gray and those that wore the blue go forward shoulder to shoulder in the hallowed unity of serried khaki—go “over the top” to victory—for unto them is given the privilege to personify the power and might of the United States and translate it into a living, pulsating force to save the life of the nation.

## ***They will do it—be not afraid***

But do your part—your level best. Don’t sit back in complacent contentment—be up and doing.

Help our soldiers, our Government, our every war effort—and then you will experience the fine feeling that you are helping to win the war—for

## ***This Nation’s Business Is to Win the War***

To the South—a mighty empire in itself—we extend our compliments and greetings.

Your mountains, hills, valleys and waters compose an area greater than Great Britain, France, Germany, Belgium and four or five other European countries, and are enriching the world with iron, coal, timber, cotton, corn, wheat and many other products.

In your sulphur and cotton you supply two essential elements for ammunition, for without them explosives could not be made; and you are getting ready to supply another essential—nitrates, to be made at the Government plant at Muscle Shoals.

And the location at Charleston, W. Va., of the Government armor-plate and projectile plants gives you another opportunity out of your boundless resources to be of important service to mankind—and with the opportunity goes an added responsibility.

But with all the South is doing, it can do more. It will do more. With every other section of our country it is called upon to contribute its utmost for the battle against the Hun. For to the South Nature has lavished untold resources, and out of its riches in spirit and wealth it will respond generously.

During the past year the Citizens National Bank has overlooked no opportunity to prepare for the tremendous service that it will be called upon to render.

With steady, healthy growth its resources have expanded to over \$23,000,000, and this without consolidation with any other bank—an accomplishment never before equaled by any National Bank from Philadelphia to the Gulf of Mexico.

We are better equipped than ever before to serve our friends in the South and elsewhere, and we are heartened and inspired in our work by an abiding faith in America and its ideals, and a complete triumph in our fight for democracy and civilization.

## **Citizens National Bank**

BALTIMORE, MD.

Buy War Savings Certificates.

Join the Red Cross.

Prepare to Buy the Next Liberty Loan Bond.

**Capital and Surplus**  
\$4,000,000



**Total Resources**  
\$38,000,000

## The Largest National Bank in the South

Liberal Accommodations to Manufacturing Corporations

**MERCHANTS-MECHANICS  
FIRST NATIONAL BANK  
OF BALTIMORE**

**The National Exchange Bank  
OF BALTIMORE, MD.**  
Hopkins Place, German and Liberty Sts.  
Capital \$1,500,000.  
March 30, 1915, Surplus and Profits, \$850,000.00  
OFFICERS.  
WALDO NEWCOMER, President.  
SUMMERTIME BALDWIN, Vice-Pres.  
CLINTON G. MORGAN, Cashier.  
JOSEPH W. LEFFLER, Asst. Cashier.  
WILLIAM R. WEBB, Asst. Cashier.  
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

## Maryland Trust Company

BALTIMORE

Capital \$1,000,000

TRANACTS A GENERAL TRUST AND  
BANKING BUSINESS

Correspondence and Interviews  
Invited

## The Palmetto National Bank

OF COLUMBIA

CAPITAL \$500,000.00  
Surplus and Undivided Profits \$250,000.00  
COLUMBIA, S. C.

Philadelphia Detroit Dallas New Orleans

**Powell, Garard & Co.**  
39 South LaSalle St.  
Chicago

We buy Southern Municipal Bonds  
(County, City, School, Road and Drainage District.)

## JOHN NUVEEN & CO.

First National Bank Building, CHICAGO

We purchase SCHOOL, COUNTY and  
MUNICIPAL BONDS. Southern Municipal  
Bonds a Specialty.

Write us if you have bonds for sale.

**First National Bank**  
RICHMOND, VIRGINIA

Capital and Surplus - - - - - \$3,000,000  
JNO. B. PURCELL, President.  
JNO. M. MILLER, JR., Vice-Pres.  
W. M. ADDISON, Cashier.

**THE BANK OF ALABAMA**  
ENSLEY, ALABAMA

R. A. TERRELL - President  
J. W. MINOR - Vice-President  
FOSTER HAMILTON Cashier

We Solicit Your Business

**WE BUY BONDS** CITY, COUNTY,  
SCHOOL and DISTRICT  
Correspondence Invited from Officials and Contractors  
**SIDNEY SPITZER & CO.**  
New York Chicago Toledo  
Cincinnati Los Angeles

Southern Branch: BELL BUILDING, MONTGOMERY ALA.

**FOR SALE** Timber, Coal, Iron, Ranch  
and other Properties  
Southern States. West Indies. Mexico.  
**GEO. B. EDWARDS**  
(Broker)

Tribune Building NEW YORK, N. Y.  
Confidential Negotiation. Investigations.  
Settlements and Purchases of Property.

**We Buy Bonds**  
City, County, School and Road, from  
Municipalities and Contractors.

WRITE  
THE PROVIDENT SAVINGS BANK  
& TRUST CO.  
CINCINNATI OHIO

## Incorporate Under DELAWARE LAWS

Complete information on application.  
**Delaware Registration Trust Co.**  
900 Market St. Wilmington, Del.  
J. Ernest Smith, President and General Counsel.  
Chas. Warner Smith, Vice-President.  
Harry W. Davis, Secretary and Treasurer.  
Charles B. Bishop, Assistant Secretary.

## To Make Your Money Make Money

on a really profitable basis is easier today than when ordinary business conditions prevail. As a natural result of the war even the most conservative securities are selling at prices which yield returns all out of proportion to their intrinsic value.

Write for our special investment suggestions.

**A. B. Leach & Co., Inc.**  
Investment Securities

62 Cedar St., New York  
Chicago Boston Buffalo Minneapolis  
Philadelphia Baltimore St. Louis

**WE BUY  
Municipal Bonds**  
ISSUED BY  
Counties, Cities, School Districts  
and Road Districts.  
WRITE US  
**CUMMINGS, PRUDDEN & CO.**  
Second National Bank Building  
TOLEDO, OHIO

Lithographer, Engraver and  
Steel Die Embosser  
Stationery Especially Designed for Your Business  
Letters are worth more now; have them better.  
**ROBERTS & SON**, Birmingham, Ala.  
Stationers and Office Outfitters.

**D. H. BURGESS & CO.**  
Exporters Importers  
P. O. Box 115 PETERSBURG, VA.  
Write us your needs in all  
lines of business

Write us about Investments in Birmingham  
Real Estate.  
**Jemison Real Estate & Insurance Co.**  
Real Estate  
General Insurance, Loans  
111 N. Twentieth St. BIRMINGHAM, ALA.

(Continued from Page 78.)

they will be disposed of at private sale. Address City Comms.

Ark., McGehee—(Road).—Bids will be received at 3 P. M. Jan. 17 by the Commissioners of the Arkansas-Louisiana Highway Improvement District at McGehee for \$2,500,000 improvement bonds, maturing from 4 to 20 years. Bids are invited separately for interest at 5, 5½ and 6 per cent. No bids less than par and interest. M. E. Sherland is Secy. of the Board. Further particulars will be found in the Proposals Department.

Ark., Pine Bluff—(Drainage).—\$90,000 of 5½ per cent. 1-15-year bonds of Flat Bayou Drainage District are reported sold to the National Bank of Arkansas.

Fla., Clearwater—(Street, Incinerator, Sewer).—Election is called for Feb. 7 on \$25,000 of 5 per cent. 30-year \$1000 denomination bonds for street (\$29,250), garbage incinerator (\$5000) and sanitary sewer extension (\$750). Bonds to be dated April 1, 1918. Not to be sold for less than 90. W. S. Gregory is City Clerk.

Fla., Fellsmere—(Electric Light).—\$20,000 of 6 per cent. 20-year \$1000 denomination electric light bonds are reported sold to G. B. Sawyers & Co. of Jacksonville, Fla., at 98.

Fla., Kissimmee—(Road, Bridge).—Bids

## Write Us—

when you have any Road, School  
or Drainage Bonds to sell.

We are in a position to pay  
attractive prices and to finance  
issues for contractors or municipalities.  
Bond Department.

MISSISSIPPI  
VALLEY  
TRUST  
CO.  
SAINT LOUIS



This bank offers a special service  
to Southern brokers, manufacturers,  
shippers and banks for  
the collection of drafts, particularly  
B/L drafts on Chicago  
and other Northern points.  
Please write us for particulars.

We also solicit correspondence  
and interviews with high-grade  
Southern concerns regarding a  
direct Chicago banking connection.

**UNION TRUST COMPANY**  
CHICAGO

Capital and Surplus \$3,000,000.00  
Deposits \$34,000,000.00

Established 1859

## CONTRACTORS AND MANUFACTURERS



We Make Them Promptly.

Headquarters for SEALS, STOCK CERTIFICATES, STENCILS,

STEEL DIES, BRASS SIGNS, ENAMEL PLATES,

MEMORIAL PLATES, CHURCH SEALS AND PEW PLATES,

Made on our Premises.

Send for Catalogue.

**THE J. F. W. DORMAN COMPANY**

BALTIMORE, MD.

will be received until Jan. 12 by J. L. Overstreet, Clerk Circuit Court Osceola County, for \$275,000 of 6 per cent. bonds.

Fla., Miami—(Road and Bridge).—Vallidated \$140,000 of 6 per cent. bonds of Special Road and Bridge Dist. No. 6 of Dade County, Ben Shepard is Clk. of County Comms.

Fla., Palatka—(Road).—Election will be held Jan. 21 on \$200,000 of 6 per cent. \$1000 denomination bonds of sub-road district, Putnam County. Chas. E. Rowton is Chmn. County Comms.

Fla., Perry—(Street, Water, Sewer).—No sale was made of the \$25,000 street and \$20,000 water and sewer 5 per cent. 30-year \$1000 denomination bonds for which bids were asked until Dec. 24. W. B. Davis, P. F. Bloodworth and A. C. Kirby are bond trustees.

Fla., Pensacola—(Boulevard).—An issue of boulevard bonds is reported voted. C. W. Eggart is City Clerk.

Fla., St. Petersburg—(Sea Wall).—\$20,000 of sea wall bonds are reported sold to George E. Bardeen of St. Petersburg.

Fla., St. Petersburg—(Water-front Improvement).—\$85,000 of 5 per cent. waterfront improvement bonds are reported sold to the J. B. McCrary Co., contractors, who have contract for the work. This sale includes \$20,000 which G. E. Bardeen bought.

Ga., Baldwin—(School).—\$6000 of 5 per cent. \$100 denomination school building bonds have been authorized. Address School Board.

Ga., Mount Airy—(School).—\$7000 of school bonds are reported voted. J. T. Peyton is Mayor.

Ga., St. Mary's—(Bridge).—\$20,000 of 5 per cent. 20-year \$1000 denomination bridge bonds are reported sold to the Citizens' & Southern Bank of Savannah at par.

Ky., Ashland—(School).—Bids will be received until 7 P. M. Jan. 7, it is reported, for \$75,000 of 5 per cent. 20-year serial school bonds. Address City Clerk.

Ky., Mayfield—(Water-works Purchase).—Contemplated to sell \$270,000 of bonds to purchase Mayfield Water & Light Co. C. M. Parkhill is Mayor.

La., Donaldsonville—(Levee).—\$150,000 of 5 per cent. 5-10-year serial bonds of La Fourche Basin Levee District are reported for sale. C. C. Weber is Secy. Levee Comms.

La., Winnfield—(Highway).—\$30,500 of 5 per cent. serial 1-10-year Winn Parish highway certificates were recently bought by J. L. Arlitt of Austin, Tex.

Miss., Clarksdale—(School).—Bids will be received until 7:30 P. M. Jan. 22 by the City Comms. for \$95,000 of over 6 per cent. school bonds. R. E. Stratton is City Clerk. Further particulars will be found in the Proposals Department.

Miss., Greenville—(School).—\$15,000 of 5½ per cent. serial bonds (to 1928) of Riverside School District, Washington County, are reported sold to Bumpus & Company of Detroit at \$15,015, accrued interest and blank bonds.

Miss., Houston—(Road).—\$50,000 of 6 per cent. \$500 denomination road bonds of Supervisors Dist. No. 3, Chickasaw County, are reported sold to the Bank of Commerce & Trust Co. of Memphis, Tenn., which is offering them to investors.

Miss., Meridian—(Hospital).—It is contemplated to issue \$35,000 of county bonds to improve facilities at the Matty Herse Hospital in Meridian. J. A. Bailey is Pres. of the State Trustees of the hospital.

Miss., Pascagoula—(River-front Purchase).—City Council is reported authorized to issue \$40,000 of river-front purchase bonds. Address The Mayor.

Miss., Philadelphia—(Drainage).—\$125,000 of 6 per cent. 1-24-year bonds of Kentawka Drainage District, Neshoba County, dated April 1, 1918, will be sold. Denominations \$100, \$500, \$1000. Date of sale not yet announced. A. D. Sharp is Chmn., and Paul Chambers, Atty. for the District.

Mo., Bethany—(Road).—An election on \$85,000 of road bonds is contemplated. Address County Comms.

Mo., Fulton—(Road).—\$11,000 of Millersburg Special Road Dist. Callaway County, bonds, recently voted, will soon be placed on the market. Address County Comms.

Mo., Greenville—Wayne County has issued \$200,000 of bonds, which are registered and ready for sale, but the court does not contemplate selling them at this time. Sam D. Bryan is County Clerk.

Mo., Liberty—(Road).—\$1,250,000 of 4½ per cent. road bonds of Clay County are authorized and may be issued. Edgar Archer is County Clerk.

Mo., Milan—(Funding).—\$13,000 of funding bonds are reported voted. Address The Mayor.

Mo., Salem—(Road).—\$160,000 of 4½ per cent. Dent County road bonds are not yet sold. J. H. McDonald is County Clerk.

Mo., St. Joseph—(Road).—On Jan. 24 a vote on \$2,000,000 of Buchanan County road bonds will be taken. Address County Commissioners.

N. C., Asheville—(Street).—The \$217,000 of 5 per cent. 17-year serial street bonds offered Dec. 19 were not sold. F. L. Conder is Secy. and Treas. City Commsr.

N. C., Benson—(Water-works, Sewers).—About Feb. 12 \$50,000 of 5 per cent. 40-year water-works and sewerage bonds will be issued. Ezra Parker is Mayor.

N. C., Burgaw—(School).—Bids will be received, it is reported, until noon Feb. 4 for \$15,000 of 6 per cent. bonds of Atkinson School District, Pender County. T. T. Murphy is Secy. County Board of Education.

N. C., Greenville—(Funding, Water).—\$27,000 of 6 per cent. \$1000 denomination serial bonds (\$104,000 general funding; \$73,000

assessment funding and \$100,000 water) are reported sold to Cummings, Prudden & Co. of Toledo, Ohio, at par and interest.

N. C., Louisburg—(Road).—An issue of Franklin County road bonds is reported voted in Gold Mine Township. Address County Commsr.

N. C., Marshall—(Road).—Report is denied that Madison County, Precinct No. 1, has voted \$100,000 of road bonds.

N. C., Reidsville—(Street, Sewer, Funding).—City will sell \$200,000 of 5½ per cent. 20-year \$1000 denomination street, sewer and funding bonds. Address E. B. Ware, Clerk.

Okla., Chandler—(School).—Election is contemplated on school bond issue. Address School Board.

Okla., Covington—(School).—An issue of \$20,000 of school bonds is proposed. Address School Board.

Okla., Guthrie—(Reservoir).—Reported that election may be called to vote on \$300,000 of reservoir bonds. Address The Mayor.

## Municipal Bonds Purchased

Correspondence invited from investors wishing to sell their holdings of seasoned marketable Municipal Bonds, and from municipal officials and contractors in connection with entire new issues.

**THE NATIONAL CITY COMPANY**  
55 Wall Street, New York

PHILADELPHIA

BOSTON

## Annual Report of the Condition of the Citizens Savings Bank Of Baltimore City

Southwest Corner of Baltimore and Eutaw Sts.

in the CITY OF BALTIMORE, in the STATE OF MARYLAND, at the close of business December 31, 1917, in conformity with Section 36 of the Banking Law.

Funds on hand December 31, 1916.....	\$5,073,364.73
Received from depositors during 1917.....	2,029,069.96
Received interest and dividends on stocks, bonds, loans, etc., during 1917.....	261,428.86

Total.....	\$7,363,863.55
Paid depositors during 1917, including interest.....	\$2,450,073.21
Paid expenses during 1917.....	28,329.20
Paid taxes during 1917.....	14,261.00
Paid premiums, etc., during 1917.....	5,642.77
Ledger cost of bonds reduced during 1917.....	89,982.70
Funds on hand December 31, 1917.....	4,775,573.98

Total.....	\$7,363,863.55
------------	----------------

### ASSETS. (Book Value.)

Bonds and stocks owned.....	\$3,086,245.40
Loans on collateral.....	274,035.00
Loans on mortgages.....	906,740.00
Real estate (bank building).....	25,000.00
Other real estate owned and ground rents.....	42,504.16
Miscellaneous assets.....	2,568.66
Cash on hand and in banks and trust companies.....	348,480.76

Total.....	\$4,775,573.98
------------	----------------

### LIABILITIES.

Due depositors, including interest credited January 1, 1918. \$4,491,582.70	
Guarantee fund and undivided surplus.....	283,901.28

Total.....	\$4,775,573.98
------------	----------------

Accounts open December 31, 1916.....	8,257
Accounts opened during 1917.....	2,288
Accounts closed during 1917.....	1,501
Accounts existing December 31, 1917.....	9,044

CHARLES SPILMAN, President.  
WILLIAM SPILMAN, Treasurer.

We, the undersigned, appointed by the President and Directors of the Citizens Savings Bank of Baltimore City to audit the above statement, do hereby certify that we have examined the same and find it correct.

OWEN DALY,  
THEO. F. KRUG,  
CHARLES ZIES.

## TOWNSEND SCOTT & SON *Bankers and Brokers*

### New Capital for Established Enterprises

We are interested in the financing of sound industrial enterprises throughout the South. Loans made also to public utilities and municipalities

Established 1832

BALTIMORE, MD.

### LOANS MADE TO STATES, CITIES, COUNTIES, ETC.

#### Also Entire Issues of Bonds of Successful Industrials Purchased

Largest Capital and Surplus of Any Financial Institution in Maryland or Any Southern State.

Established 1884

Resources \$21,000,000

### MERCANTILE TRUST and DEPOSIT CO. OF BALTIMORE

A. H. S. POST, President

F. G. BOYCE, Jr., Vice-President

### Alabama Audit Co.

BANK, COMMERCIAL,  
MUNICIPAL ACCOUNTING  
1122-24 Bell Bldg., Montgomery, Ala.  
Van Antwerp Bldg., Mobile, Ala.

### Twenty-Five Years' Experience AUDITORS ACCOUNTANTS COST ACCOUNTING

New York, Louisville, Augusta, St. Louis, Baltimore, Pittsburgh, Cincinnati, Richmond, Chicago, Milwaukee, Columbus, Grand Rapids, Detroit, and West Virginia References.

State Public Service Utility Audit and Investigating Co., Inc.  
306-307 Kanawha National Bank

CHARLESTON, WEST VIRGINIA

### PRESCOTT & SNIDER, Kansas City, Mo. DEALERS IN BONDS and FIRST MORTGAGES

In the market at ALL times for whole issues of High-Class Municipal Bonds, City, County, School, Road and District. Also First Mortgages.

Correspondence invited from Officials and Contractors.

### COUNTY, SCHOOL AND DISTRICT BONDS

The Mercantile Trust Company, Saint Louis, through its Bond Department, is always in the market for County, School and District Bonds. We have the facilities for handling whole issues of County, School and District or Municipal Bonds and all matters pertaining to them. We will be glad to hear from banks or investors who may wish to buy or sell high-grade bonds.

MERCANTILE TRUST CO., ST. LOUIS, MO. Capital and Surplus, \$9,500,000

We Buy City, County  
FROM MUNICIPALITIES OR CONTRACTORS  
We are in position to pay HIGHEST PRICES  
Write or wire us your offerings  
THE NEW FIRST NATIONAL BANK Assets, \$8,000,000 COLUMBUS, O.

W. L. SLAYTON & CO. DEALERS IN  
CITY COUNTY TOWNSHIP BONDS ROAD SCHOOL DRAINAGE  
TOLEDO, OHIO

If you want to Buy or Sell, write for Prices. We solicit your patronage.

## An Unusual Mobile Water-Front Site

We want to get in touch with interests who will consider putting a shipbuilding plant or other large industry on the water-front portion of a property we control at Mobile, Alabama. We would cut up and sell the remaining land for small factories and residences, and assist responsible persons in the financing of a big project for the front portion.

### IDEAL LOCATION for Shipbuilding.

Marine Engine Building.  
Sugar Refinery.  
Cordage Mill.  
Lumber Manufacturing, or  
Agricultural Implement Manufacturing for export trade.

The property has a frontage of 2200 feet on Mobile Bay. Approximately 100 acres is beautiful high land, affording perfect drainage, having an elevation of about 20 feet above mean low tide. Approximately 50 acres in front is tidal land, varying from zero to 2 feet below mean low tide, but is subject to reclamation at a low cost.

### ITS GREAT ADVANTAGES

**CITY FACILITIES.**—All city facilities and services are available, such as electric car service, city water, gas, electric lights, sewers, police and fire protection, telephone, etc. The Cedar Street line of the Mobile Light & Railway Company runs to the north end of the property, and the Marine Street line and the Washington Avenue line of the same company run parallel to the west line of the property, one block therefrom.

### The following is quoted from a report of The Mobile Chamber of Commerce:

**FUEL.**—Coal barges ply regularly from the Warrior River coal fields to Mobile, delivering a high-grade coal at a lower cost than is possible in any other port in the United States.

**LABOR.**—Mobile has more skilled mechanics than any other Gulf port; more ship carpenters, calkers, etc., than the rest of the Gulf ports combined; more boiler works and foundries than any Gulf port; an abundance of unskilled labor available for any industrial purpose. More iron, coal and timber are located upon Alabama's inland waterways than are available to any other Gulf port.

**TRANSPORTATION.**—Five important railroads connect Mobile with all the principal cities and manufacturing centers of the country. Coastwise and Atlantic and Merchant marine lines make Mobile a regular port of call.

**TAXATION.**—The State of Alabama and the City of Mobile have enacted legislation which exempts shipbuilding plants from taxation for a period of ten years.

### SEE HOW IT IS BOUNDED

**EAST BOUNDARY.**—2200 feet frontage on Mobile Bay. There is already a 15-foot channel, dredged by the Government, to within a few feet of the property. Just to the east is a protected harbor for future development of terminal facilities, and islands thrown up by the United States Government for harbor protection. To the east of these islands is the main ship channel, which has been dredged by the United States Government to a depth of 27 feet and will soon be dredged to a depth of 30 feet.

**WEST BOUNDARY.**—One of the finest school properties and mechanics' residential sections of the City of Mobile adjoins the property on this side; also several churches of different denominations are close by. The main line of the Louisville & Nashville Railroad Company runs through the property near the west boundary.

**NORTH BOUNDARY.**—Adjoining the property on the north side is the Gulf, Mobile & Northern Railroad shops and terminal property and tracks. That Company has announced that it will spend \$2,000,000 for a new freight terminal and docks at this point. North of the Gulf, Mobile & Northern Terminal are the Turner Terminal Company's great warehouses, which are claimed to be the largest warehouses under one single roof in the United States. Adjoining the Turner Terminal is the Mobile Shipbuilding Company, a subsidiary company of the Kelly-Atkinson Company of Chicago, and next north are the drydocks and shipbuilding yard of Alabama Drydock & Shipbuilding Company.

**SOUTH BOUNDARY.**—Another high-grade mechanics' residential section is on the south. Then comes Monroe Park, a high-class amusement park of the Mobile Light & Railway Company. Almost immediately to the south of this is property owned by the City of Mobile known as Arlington. The city plans the immediate expenditure of \$600,000 here, contemplating an ultimate expenditure of \$1,000,000.

INQUIRIES INVITED. BETTER DO IT BY LETTER  
OR WIRE IMMEDIATELY.

**H. A. Stone & Company**  
Corporation Financing

Widener Building,

Philadelphia, Pa.

Oklahoma, Kingfisher.—(Water-works).—Reported that election will be held on water-works bonds. Address The Mayor.

Oklahoma, Paulding.—(Refunding).—\$3350 of 5 per cent, funding bonds offered Oct. 27 are reported not yet sold. Address The Mayor.

Oklahoma, Pauls Valley.—(School).—Plans are reported in progress to issue \$50,000 of high-school bonds. Address School Board.

South Carolina, Charleston.—(Water-works).—\$50,000 of the \$75,000 of 4½ per cent, 20-40-year water-works bonds offered Nov. 15 are reported sold at par and interest.

South Carolina, Columbia.—(Market).—City Council and Chamber of Commerce, on account of war conditions, decided not to push plan to vote on bonds to build a market-house at this time. L. A. Griffith is Mayor.

South Carolina, Monroe.—(Funding, Street).—\$75,000 funding and \$164,000 street 6 per cent, bonds offered Dec. 14 and not sold are now reported sold to John Nuveen & Co. of Chicago at par and interest, less 2½ per cent, commission.

South Carolina, Union.—(Funding).—Election possibly next May on \$50,000 of funding bonds. L. C. Wharton is Mayor.

Tennessee, Celina.—(Road).—\$100,000 road bonds are reported voted. Address County Commissioners.

Texas, Archer City.—(Road).—\$60,000 of 6 per cent. Archer County road warrants are reported sold to the Blanton Banking Co. of Houston, Tex., at 96 and interest.

Texas, Austin.—(School).—Bids will be received until noon Jan. 12 for \$50,000 of 5 per cent, 20-year school bonds. A. P. Wooldridge is Mayor.

Texas, Belton.—(Road).—Bids will be received until 10 A. M. Jan. 17 for \$400,000 of 5 per cent, road bonds. A. L. Liles is County Auditor.

Texas, Bonham.—(Road).—\$70,000 issue of road bonds is proposed. Address County Commlrs.

Texas, Bynum.—(School).—\$20,000 of school bonds are reported voted. Address School Board.

Texas, Corpus Christi.—(Seawall).—\$600,000 of 15-year Seawall bonds were voted at the recent election. Roy Miller is Mayor.

(Continued on Page 84.)

CHARLES L. HEHL, C. P. A., President      JOHN KUCHLER, C. P. A., Vice-President  
ERNEST E. WOODEN, C. P. A., Sec. and Treas.

## BALTIMORE AUDIT COMPANY

901-903 Calvert Building

BALTIMORE, MD.

**York Safe and Lock Company**  
MANUFACTURERS OF  
**SAFES and VAULTS**  
YORK, PA.      BALTIMORE, MD.

## THE SELWYN HOTEL, Charlotte, N. C.

EUROPEAN PLAN, \$1.50 and UP  
Fireproof. Modern and Magnificently Furnished. 150 Rooms, 75 with Private Bath. Large Sample Rooms. Under New Management. Most Desirable Location. Long Distance Phone in Each Room. Caters Especially to the Tourist and Commercial Traveler.  
SELWYN HOTEL CO.

R. W. FARR, Manager

## Hopkins Place Savings Bank 7 Hopkins Place      BALTIMORE

### ANNUAL REPORT

of the condition of the Hopkins Place Savings Bank of Baltimore, in the State of Maryland, at the close of business December 31, 1917, in conformity with section thirty-six of the Banking Law.

Funds on hand December 31, 1916.....	\$11,411,396.63
Received from depositors during 1917.....	4,271,440.93
Received interest and dividends.....	529,979.60
Total	\$16,312,817.16
Paid depositors during 1917, including interest.....	\$5,008,100.28
Paid expenses during 1917.....	38,146.48
Paid taxes during 1917.....	29,011.20
Ledger cost of bonds and real estate reduced.....	61,337.06
Funds on hand December 31, 1917.....	11,176,228.14
Total	\$16,312,817.16

### ASSETS (Book Value):

Bonds and stocks owned (par value \$6,275,911.26).....	\$5,924,549.00
Loans on collaterals.....	312,572.20
Loans on mortgages.....	3,991,050.00
Bank building.....	100,000.00
Real estate.....	56,762.04
Ground rents.....	44,300.00
Cash on hand and in banks.....	746,994.90
Total	\$11,176,228.14

### LIABILITIES:

Amount due depositors.....	\$10,645,950.14
Undivided surplus, chargeable with three months' accrued interest on deposits, payable April 1, 1918.....	530,278.00
Total	\$11,176,228.14
Accounts open December 31, 1916.....	26,066
Accounts open during 1917.....	6,168
Accounts closed during 1917.....	4,182
Accounts open December 31, 1917.....	28,052

### LIBERTY LOAN ACCOUNT:

Bought 1st Issue.....	\$20,000.00
Sold on Installment Plan....	98,550.00

ROBERT M. ROTHER, President.  
JOHN L. HILDEBRANDT, Treasurer.

*The undersigned have audited the above report, examined all the securities named therein, and found them on hand as stated.*  
January 4, 1918.

FREDERICK C. SEEMAN,  
ALBERT W. ADT,  
WM. H. MATTHAI,  
JAMES B. PLATT,  
HENRY S. KING.



*One of the many streets in Coppercliff, Ontario, treated with "Tarvia-B," 1917.*



*Sudbury-Coppercliff Road, Ontario, three and a half miles long. Resurfaced in 1916 with three-inch "Tarvia-X" top, three-coat method.*



*Applying "Tarvia-X," Sudbury-Coppercliff Road, Ontario, 1917.*

## Frost-proof Roads in the "Frozen North"

Winter temperatures in the Algoma district in northern Ontario are so severe that few road-making materials can withstand them.

Tarvia does!

Under the severest tests Tarvia has proved itself frost-proof, mud-proof and traffic-proof, regardless of long-continued zero weather or other equally rigorous climatic conditions.

The Sudbury-Coppercliff Road pictured above is three and a half miles long. It carries a very heavy wagon-traffic. It has a three-inch Tarvia surface, making it impervious to the wear of traffic, the effects of the severe northern winter, and to the equally trying spring thaw when ordinary roads soon become impassable.

Tarvia is a coal-tar preparation shipped in barrels or in tank-cars.

It is made in several grades for varying road conditions.

"Tarvia-A" is applied hot for resurfacing a road already built.

"Tarvia-B" is used cold. It sinks readily into the road-surface, yet is strong enough to bind it firmly together. It is the cheapest form of road maintenance yet invented.

"Tarvia-X" is to be used in constructing a new road.

Macadam roads treated with Tarvia are durable, smooth, mudless, dustless, frost-proof and waterproof.

Used in place of water as a binder, it makes a lasting, resilient road-surface that will not grind to powder under automobile or horse-drawn traffic.

Booklets describing the Tarvia treatments free upon request.



### *Special Service Department*

This company has a corps of trained engineers and chemists who have given years of study to modern road problems.

The advice of these men may be had for the asking

by any one interested.

If you will write to the nearest office regarding road problems and conditions in your vicinity, the matter will have prompt attention.

New York  
Cleveland  
Kansas City

Chicago  
Cincinnati  
Minneapolis

Philadelphia  
Pittsburgh  
Nashville

**The Barrett Company**

THE BARRETT COMPANY, Limited : Montreal

Toronto

Winnipeg

Vancouver

Boston

Detroit

Salt Lake City

St. John, N. B.

St. Louis

Birmingham

Seattle

Halifax, N. S.

TRADE  
**B**  
MARK  
Sydney, N. S.

(Continued from Page 82.)

Tex., Eastland—(Road).—\$50,000 of road bonds, District No. 2, Eastland County, are reported voted. Address County Comms.

Tex., Electra—(Water-works).—\$12,000 of 6 per cent. serial water-works funding warrants are reported approved. Address The Mayor.

Tex., Fairfield—(Road).—\$150,000 of road bonds of Teague Dist., Freestone County, are reported voted. Address County Comms.

Tex., Fairfield—(Road).—\$75,000 of road bonds of Freestone County have been voted. Address County Comms.

Tex., Fort Worth—(School).—Bids will be received until 8 P. M. Jan. 18 for \$100,000 of 5 per cent. \$1000 denomination bonds; maturity \$100,000 end of 10 years, and \$10,000 each year thereafter. J. C. Griffith is Pres't. School Board, 803 Burk Burnett Bldg. *their particulars will be found in the Proposals Department.*

Tex., Franklin—(Road).—\$75,000 of road bonds are reported voted. Address County Comms.

Tex., Galveston—(Refunding).—\$114,000 of 5 per cent. refunding bonds of Galveston County are reported being offered to investors by Bolger, Mosser & Williamson of Chicago.

Tex., Groesbeck—(Road).—\$65,000 issue of

Limestone County road bonds is proposed. Address County Comms.

Tex., Gonzales—(Road).—Election is to be held January 22 to vote on \$60,000 of not exceeding 5½ per cent. 30-year serial bonds, Road Dist. No. 3, Gonzales County. J. C. Romberg is County Judge.

Tex., Hemphill—(Road).—\$500,000 of road bonds are reported voted. Address County Comms.

Tex., Hempstead—(Road).—Election reported Jan. 8 on \$15,000 road bonds. Address County Comms.

Tex., La Grange—(Road).—Election reported Jan. 15 on \$100,000 road bonds. Address County Comms.

Tex., Lockhart—(Road).—\$250,000 of 5 per cent. 30-year \$1000 denomination road improvement bonds voted Dec. 22 will be disposed of at private sale any time after Feb. 15; thus: Road District No. 1, \$200,000; No. 3, \$15,000; No. 6, \$35,000; J. T. Ellis is County Judge.

Tex., Meridian—(Road).—Reported plan to issue \$40,000 road bonds. Address County Comms.

Tex., Oakville—(Road).—Bids will be received until 9 A. M. Jan. 15 for \$70,000 of 5 per cent. \$500 denomination road bonds of Live Oak County. W. W. Caves is County Judge.

(Continued on Page 86.)

# Mercantile Trust and Deposit Company

OF BALTIMORE

*Established 1884*

CALVERT AND GERMAN STREETS

*Largest Capital and Surplus of any Financial Institution in Maryland or any Southern State*

FINANCIAL STATEMENT DECEMBER 31, 1917

## RESOURCES.

Baltimore City Stock.....	\$2,404,214.99
Other Stocks and Bonds (Market value \$3,569,141.59) .....	3,476,386.99
Short Term Notes and Bonds (Market value \$2,057,461.53) .....	2,003,242.53
Loans on Approved Collateral.....	9,794,109.12
Office Building and Lot.....	275,000.00
Unsettled Bond Accounts and Accounts Receivable.....	40,374.00
Cash on Hand and in Banks.....	3,957,967.26
	\$21,951,294.89

## LIABILITIES.

Capital Stock.....	\$1,500,000.00
Surplus.....	3,000,000.00
Undivided Profits.....	304,632.28
Reserved for War Taxes.....	70,000.00
Deposits:	
Subject to Check.....	\$12,960,173.54
Time.....	3,566,533.13
In Trust.....	549,955.94
	17,076,662.61
	\$21,951,294.89

The undersigned, a Committee of Stockholders, appointed to make an examination of the accounts and securities of the Company, respectfully report:

That we have examined each item composing the Resources and Liabilities, and have found same to correspond with the statement made at the close of business December 31, 1917;

That all the Bonds and Stocks owned by the Company are carried at conservative valuations;

That the open accounts are, in our judgment, well secured;

That the collateral hypothecated to secure the various loans is of good character, and with ample margins.

CHARLES H. CLASSEN, (Chairman),  
JOHN C. LEGG, JR.,  
THOMAS O'NEILL,  
EDGAR G. MILLER, JR.,  
ALFRED R. RIGGS.

WILTON SNOWDEN, President.  
J. WILSON COLE, Treasurer.

Baltimore, January 1, 1918.

We find upon investigation that the investments of the Central Savings Bank of Baltimore have been carefully made in bonds of the most substantial character, that its loans are well secured, and that it is economically and judiciously managed.

WILLIAM G. BAKER, JR.,  
J. PEMBROKE THOM,  
EDWARD LLOYD WINDER.



(Continued from Page 84.)

Tex., Orange—(School).—Election will be held Jan. 22 on \$100,000 school and \$25,000 street improvement bonds. Geo. W. Curtis is Secy. School Board.

Tex., Port Lavaca—(Road).—\$75,000 of 5 per cent. 30-year serial \$1000 denomination bonds of Road District No. 2, Calhoun County, dated Nov. 15, 1917, will be ready for sale, either private or public, within 30 days. F. M. Dudgeon is County Judge.

Tex., San Antonio—(Public Improvements). Reported that an election will be held the latter part of January or early in February to vote on \$1,000,000 of bonds. Address The Mayor.

Tex., Van Zandt—(Road).—\$300,000 of road-construction bonds may be issued. Address County Commrs.

Tex., Vernon—(Road).—\$150,000 of Wilbarger County bonds are to be sold for Road District No. 1. E. L. McHugh is County Judge.

Tex., Waco—(Sewer).—\$225,000 of 5 per cent. 30-year, \$1000 denomination sewer bonds have been voted. Jno. Dollins, Mayor; Jno. C. Davis, City Secy.

Tex., Waxahachie—(Road).—Election on \$4,000 of road bonds reported called for Jan. 8. Address County Commrs.

Tex., Wharton—(Road).—\$60,000 of road bonds reported voted by District No. 3, Wharton County. Address County Commrs.

Va., Hopewell—(Improvement).—\$75,000 of 6 per cent. municipal improvement bonds, denomination \$1000, are reported sold to J. C. Mayer & Co. of Cincinnati, Ohio, at par.

Va., Newport News—(Street, Harbor).—No

bids were received for the \$50,000 of street and \$50,000 of harbor, 30-year bonds, offered Dec. 28. Floyd A. Hudgins is City Clerk.

W. Va., Keyser—(Water).—Proposed issue of \$35,000 water bonds reported defeated at recent special election.

#### FINANCIAL NOTES

Frostburg, Md., redeemed on Jan. 1 \$4000 of its 4 per cent. water bonds of 1898. S. R. Tiddy is Mayor, and J. S. Metzger, Clerk.

Dallas, Tex., will, it is announced, retire \$20,000 of 5 per cent. sewer bonds that were issued in 1890.

The firm name of Cummings, Prudden & Co., dealers in municipal bonds, Toledo, Ohio, was changed on January 1 to Prudden &

Company. Paul P. Prudden, Arthur J. Spencer, Arthur T. Bell and Harry L. Hutchison compose the firm, which has offices also in New York, Chicago and Cincinnati.

On January 2 A. E. Duncan withdrew from the firm of Robert Garrett & Sons, investment bankers, Baltimore, to again devote his whole time to the Commercial Credit Co. of that city, as chairman of the board. At the same time T. Stockton Matthews, Manager of the bond department of the banking-house since September, 1916, was admitted to membership in the firm. Plans for the further development of the Commercial Credit Co., which Mr. Duncan organized in 1912, are being prepared. Mr. Matthews has been engaged in the investment banking field in Baltimore for about 16 years.



### HIGHLAND PINES INN

Weymouth Heights, Southern Pines, N. C.  
"JUST FAR ENOUGH SOUTH"

(Every Modern Convenience and Luxurious Appointments)  
Open from December 1st to May 1st

**SUPERB CLIMATE.** Not too cold or yet too hot. The resort with the just-right weather.

**ACCESSIBILITY.** Only a day or a night from New York or Florida on the splendidly equipped trains of the Seaboard Air Line Railway.

Extensive and delightful views in all directions. Adjacent to 18-hole course of Southern Pines Country Club. Good automobile roads. Excellent hunting. Consumptives not received.

A. I. CREAMER, M. H. TURNER, Proprietors

### THE GRUNEWALD

THEO. GRUNEWALD, Proprietor



New, Modern  
Best Equipped and Finest  
Hotel in the South

Cost Over \$2,000,000

400 Rooms European Plan

#### RATES:

\$1.00 and Upwards. With Bath,  
\$2.50 and Upwards.

### NEW ORLEANS



### CONSERVATION and EFFICIENCY go hand in hand

*Save More, Produce More and Waste Less* by using ATKINS SILVER STEEL SAWS.

#### A BETTER SAW FOR EVERY PURPOSE

We make saws of all kinds—Band, Circular, Drag, Hand, Hack, Metal and Kwik Kut Metal Cutting Machines.

ATKINS SAWS are made from "Silver Steel"—our exclusive formula—"The Finest on Earth. This is an argument for you to try them.

WRITE FOR OUR COMPLETE CATALOG

E. C. ATKINS & CO. Inc., *The Silver Steel Saw People*

Home Office and Factory, Indianapolis, Ind.

Machine Knife Factory, Lancaster, N. Y.

Canadian Factory, Hamilton, Ont.

Branches carrying complete stocks in all large distributing centers, as follows:

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Chicago

Memphis  
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Paris, France

